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Railway Age

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Lubrication may be safely classified under three heads—good, bad and that indifferent state usually termed "medium."

Good lubrication connotes efficiency. It implies certainty of action and a satisfactory return in service, through mileage and protection to the motion and bearing parts of equipment.

"Bad" is the only fitting designation for the type of lubrication identified with the use of railroad oils made to sell at a "price"—and by their very nature unsuited for the service they attempt to perform. The almost immediate results establish the aptness of the classification, beyond question.

Medium lubrication is the kind that "gets by" without showing at once the effects of its shortcomings, which nevertheless are apparent when its performance is checked over an extended period. The well-known lubrication "problem" invariably appears with this class of lubrication service.

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EDITORIAL

Railway Age

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The Fuel Association Prize Contest

Just before the close of the last convention of the International Railway Fuel Association, Eugene McAuliffe offered a prize of $100 for the best paper on fuel economy submitted by an engineman, fireman, conductor, brakeman or switchman, the contest to be conducted by the association. The closing date was set as August 31. If there has ever been any doubt as to the sincerity of the interest in fuel economy, either on the part of the men in locomotive and train service or the operating officers responsible for the costs of operation, the returns from this competition ought to remove it. Some 2,000 papers were received by the association before the closing date from men who are unaccustomed to presenting their ideas in writing. This is sufficient to indicate the interest of the men themselves. The fact that the officers of a large number of railroads have taken a personal interest in widely advertising the contest on their own railroads as well as in some cases adding prizes of their own as a further stimulation to activity in the contest on the part of their own employees is ample evidence of their interest and desire to profit by the ideas and opinions of their operating men. Probably no such opportunity has ever been presented for obtaining the consensus of opinion of the men responsible for the final use of 90 per cent of the fuel consumed by the railroads as to the best methods of making this large item of operating expense produce the largest return. Undoubtedly the majority of the papers will deal with firing practice and other details of train operation, but there will be many suggestions of constructive value on methods of supervision and organization. The greatest value of the contest will not lie so much in the constructive suggestions in the prize-winning paper, but rather in the results of an analysis of the reaction of the men as a whole toward the entire subject of fuel conservation.

Eliminate Delays Entering Sidings

The exasperating delays caused by stopping heavy freight trains to enter passing tracks effect a material reduction in track capacity and give rise to various expedients to eliminate such delays. One means to this end recently reported by a division superintendent was to place switchmen at the switches entering long passing tracks approaching the point of greatest congestion to avoid the necessity for long freight trains stopping and opening switches before pulling into clear, and again stopping to close the switches. This operating officer is to be complimented for accomplishing the desired result of eliminating the delays with the means available and it is hoped that he has "sold" his higher officers on the idea that trains should not be required to stop to enter certain sidings. If the circumstances justify the services of a switchman even during the rush traffic season, would it not be economy to secure this same result the year around by installing a remote controlled electric switch machine at a cost of approximately $600 a year for maintenance, depreciation and interest on investment? Especially where these passing track switches are located within a few miles of a block office or an interlocking plant, there should be no added cost for the operation of the equipment, and the elimination of the switchman's pay, for even a few months, would offset the charges caused by the switch machine layout. This conclusion is borne out by the reports of several roads to the effect that their remote controlled switch machine installations are earning 100 per cent annually on the investment. Such apparatus should be considered for numerous other locations where heavy trains are required to stop on grades or curves and where starting causes delays.

Lowering Freight Costs With Tractors

The use of machinery in any form is often of little benefit unless every possibility is utilized. This is admirably illustrated by the work which the Southern Railway has been doing in handling freight with tractors and trailers at Pinners' Point, Va., as described elsewhere in this issue. Although the cost of handling with hand trucks was exceptionally low, it was found possible to reduce it still further with efficient tractor-trailer operation. In fact, the savings in labor alone were sufficient to pay for equipment costing over $35,000 in less than 10 months. A wide variety of conditions are encountered at this station, wide runways and narrow runways, heavy bulk freight in car load lots and light, badly mixed, miscellaneous l.c.l. shipments moving from steamers and barges to cars. In spite of these conditions, savings were made from the time the installation was made. This resulted from two major factors. In the first place, an adequate amount of equipment was installed at one time (250 trailers and 4 tractors). Also an efficient organization and method of utilization were developed. The second factor was, in reality, almost entirely dependent upon the first since an adequate installation of equipment made it possible to create a tractor-trailer organization which was able to secure the best results from the equipment. This is but another way of stating that when a limited number of tractors and trailers are installed with hand trucks still dominating a platform, as is often the case, the tractor-trailer method is necessarily crippled, with the result that potential reductions in costs often become actual increases.

Saving Car Inspectors' Wages

Some roads are effecting a slight saving in wage payments by the questionable method of maintaining inadequate forces of car inspectors at some terminals. At one point of which we know it is not unusual for a freight train to be delayed half an hour or more after it has been made up before the car inspectors arrive to couple up the air and look over the train. Naturally where conditions like this exist there is constant pressure on the existing force of inspectors to speed up their operations, and the probable result is that the inspection is not as thorough as it should be. Yet the cost of a single bad derailment caused by defective equipment would pay the wages of two or three additional inspectors for some time, to say nothing of the cost to the railroad of delays to trains in yards when inspectors are not available to start to work on trains

as soon as they are made up. That some roads appreciate the importance of inspection is shown by the fact that many of them require inspection by train crews at certain designated points out on the line, even where no sharp curves or heavy grades make operation dangerous. It is an anomalous situation that a railway should be thus thorough in its requirements for inspection by train crews and at the same time at terminals should skimp in its expenses for trained car inspectors who are better qualified to do the work.

The Progress Is in the Discussion

The question of railway consolidation has made substantial progress during the past few months. We use the expression "question of railway consolidation" advisedly because the better part of the progress has been in the form of discussion, but not in that of actual merger of properties. It is not without interest that we now hear fewer rumors about mergers than we did a year or more ago. That is a fad which has passed on to a well deserved demise. When the Interstate Commerce Commission went to Boston a short while ago to hold hearings on the disposition of the New England roads in its consolidation plan, it had to lengthen its stay there several days beyond its original intention and even then it had to plan to return the following week for three more days of testimony. This demand upon its time resulted because seemingly everybody in New England of sufficient authority to talk wanted to be heard. A plan was presented at the Boston hearings for a consolidation of the Maine Central with the New York Central, but this plan did not fare as well as the advocates of it might have desired. However, it developed that there were conflicting ideas in the ranks of the shippers and railroad men in the state of Maine as to the disposition of the roads in that state. Accordingly, the discussion has been continued in conferences in Portland and other cities in an effort to arrive at agreement. It is, therefore, evident enough that railway consolidation is very much of an issue in the state of Maine. Another discussion is under way with Philadelphia as its center. This was started by the New York Central proposal to establish a new trunk line via Ashtabula and lines of the Reading and Jersey Central. Emphatically, Philadelphia does not want this plan to come to fruition, and its shippers and commercial bodies are putting themselves on record to that effect. No doubt there will be other sections where the consolidation issue will likewise receive public attention as time goes on. Such public discussion is a very favorable sign of public interest and public interest is never without great value.

The Loss of Perspective

The longer an operating man stays with one road or, more particularly, on one division or district of the same road, the more accustomed he becomes to the obstacles in the way of the most efficient operation which exist in his territory. He tends gradually to become callous to these obstacles and to look upon them as fixed and permanent. Their removal no longer seems as important as it did when, new on the job, he first noticed them and attempted unsuccessfully to secure appropriations to do away with them. Perhaps these obstacles were slight—one or two unprotected grade crossings with other railways which necessitated whistle stops for all trains; a water station located in a busy city where many highway grade crossings had to be cut every time a freight train stopped for water, which water station could as well be moved one station down the line, thus greatly reducing the waterstop delays. Nevertheless, the longer an operating man works with obstacles the more they become a part of his routine and the less he is inclined to consider them as important. In other words, he loses his perspective. In no other way can some of the anomalies which are to be observed here and there on railways all over the country be explained, and an observing railway officer riding over a strange road can easily pick them out. It would probably be advantageous to the railroads if operating men could spare more time to ride over other roads and then report their findings to the officers directly on the job. This would help the men on the job to keep their perspective and there would be less tolerance of some of the hindrances to efficient operation which persistence in presentation before the higher officers would eventually remove. If, for instance, operating officers could constantly bear in mind the cost in money and delay of an unprotected grade crossing with another railway, probably few of these would remain on busy lines in this country after a few years.

A New Development in Rate Regulation

THE MAKING by the Interstate Commerce Commission recently of its report declining to order a reduction in the rates of the western railways on grain, grain products and hay, and its action at the same time in ordering a general investigation of the rates on these commodities, constitute one of the most interesting and important developments in the regulation of railways that have occurred since the Transportation Act was passed.

The Public Utilities Commission of Kansas started a proceeding in 1921 for a reduction of the rates on grain, grain products and hay. The Interstate Commerce Commission late in that year held that it would be reasonable for the railways to make reductions of 16 per cent on wheat and 21 per cent on coarse grains. This was the first general reduction of rates required after the Transportation Act went into effect. The decision in that case manifestly was based principally upon the ground that the rates were higher than the traffic should be required to bear. It could not have been based upon the ground that, measured by the net return being earned by the railways, the rates were unreasonable, since the railways at the time were earning a return much smaller than the commission had held would be fair.

The commission later ordered a reduction of 10 per cent in all rates, excepting those on agricultural products, which already had been reduced, and the Kansas Commission soon thereafter started another proceeding for a further reduction of grain rates. Those who advocated this reduction sought to show that the tentative valuation the commission had placed on the western roads was excessive. It was manifestly impossible, however, to make a case for a reduction of rates upon the ground that the western railways were earning too much net return. In the three years ended on September 1, 1923, they were entitled under the rulings of the commission to earn an average of 5.87 per cent upon their valuation, while they actually earned an average of only 3.84 per cent. To state the matter in another way, they earned the 5.87 per cent to which they were entitled on only two-thirds of their tentative valuation, and nothing at all on the other one-third of their valuation. Therefore, those who attacked the rates would have had to show that the valuation should be reduced more than one-third before they could have shown that the return earned was excessive.

Knowing that they could not sustain any such contention they attacked the rates principally upon the ground that they

were too high for the traffic to bear, and especially too high in proportion to the rates charged by the railways upon other commodities. They showed that the price of grain was much lower compared with its price in 1913 than the prices of most other commodities; that the rates upon grain were relatively almost as much higher than in 1913 as the rates upon commodities the prices of which showed greater increases; and claimed, therefore, that the rates upon grain were much higher in proportion to the value of the service of transporting it than the rates upon other commodities.

The Interstate Commerce Commission in the decision made public by it last week, and reported in the *Railway Age* of October 20, page 727, specifically held that the net return being earned by the western roads did not warrant any reduction of their rates. "They have been and are now earning," the commission said, "considerably less than the prescribed return, and apparently less than the fair return to which they are entitled under their constitutional rights." The plain implication of this statement is that continued restriction of the western lines to the net return they have been and are now earning would involve confiscation of their property in violation of the provisions of the Constitution of the United States. Unless our memory is at fault this is the first time the commission ever practically held that the net return being earned by a group of carriers actually was confiscatory.

With respect to the rates on grain themselves, the commission found that they had not been proven to be unreasonable either with respect to the value of the service rendered in hauling grain, or in their relationship to the rates on other commodities. Since the western railways are not earning the return to which they are constitutionally entitled, and since it is claimed that their rates on grain and grain products are too high, "the inference is," as the commission said, "that other commodities are paying less than their fair share." But, as the commission said, the other commodities that are not paying their fair share have not been definitely pointed out, and in ordering a general investigation of the reasonableness of rates on grain and grain products, it obviously has invited those who say these rates are too high to point out the other commodities on which rates should be advanced, and at the same time has invited the shippers of the other commodities to come in and show why their rates should not be advanced.

We believe this creates a situation which is without a precedent in the history of regulation of rates in this country. Heretofore controversies regarding rates have been between the railways on one side and the shippers on the other. The proposed investigation and hearings will not directly involve the western railways, because their rates as a whole have virtually been held by the commission to be too low already. The controversy will be between one class of shippers that claims its rates are too high, and another class of shippers whose rates the former class of shippers claims are too low.

This unprecedented situation is a direct outgrowth of the contention which has been pressed with so much persistency and force for more than two years that freight rates should be based largely on the prices of commodities, and that owing to the great change which has occurred within recent years in the relations between the prices of different commodities there should be made corresponding changes in the relations between the freight rates upon them.

The attitudes that will be taken by the railways and the different classes of shippers concerned will be highly interesting. The railways cannot abstain from actively participating in the proceedings because, unless any general readjustment of their rates which may be made is made with the greatest intelligence and care, it may have serious adverse effects upon their revenues. Different classes of shippers are bound to be arrayed against each other, and even different persons belonging to the same general classes of shippers will be awakened to a realization that their interests are antagonistic. The prices of some farm products are low, but this is not true of the prices of all of them. The "Survey of Current Business" of the Department of Commerce for September shows that in July the *farm* price of lambs was 74 per cent higher than in 1913, the *farm* price of cotton seed 90 per cent more, of cotton 96 per cent more, and of potatoes 106 per cent more. Wool was selling in the Boston market for 109 per cent more, and tobacco was selling in Louisville for 112 per cent more than in 1913. These are all farm products, and all of them are largely produced in western and southwestern states. Will the farmers who produce them agree that their freight rates should be increased in order that the rates on wheat may be reduced? The wholesale price of sugar in July was 98 per cent more than in 1913, that of bituminous coal 77 per cent more, of pig iron 70 per cent more, of yellow pine lumber 102 per cent more, of Douglas fir lumber 112 per cent more, of red building brick 220 per cent more and of cement 73 per cent more. What will shippers of commodities such as these say when it is proposed to advance their rates in order that the rates on grain and grain products may be reduced?

The proceeding the commission has instituted is a novel one, and its progress and outcome will be interesting and important developments in government making of railway rates.

Responsibility for "Accidents" at Road Crossings

AMONG THE SUPPOSED varied considerations actuating the mind of a person who is impelled to commit a crime, is the prospect of punishment; the more certain the punishment the less likely the individual to defy the law. A similar consideration may play a part in the case of a crime that is not usually considered a crime—that of driving an automobile over a railroad track in front of an approaching express train. The prospect of recovering a sizable sum of money from the railroad, if one is injured by a train (or prospect of convincing a jury that an injury has been sustained), might conceivably make a person more reckless than he would be if he were settled in the conviction that no money could ever be got in that way. This speculation is suggested when one reads the digest of sixty-one decisions rendered by courts in crossing cases, which are printed elsewhere in this issue. We do not know that any person ever has been less cautious in crossing railroads because of not realizing how fully and completely the responsibility is on his own head and not on the railroad, but if there be any such, this mass of decisions ought to convince them very quickly of their error.

These decisions are collected and edited in the same way as are those in our regular court-news columns, but are gathered together, for this concentrated view, for the purpose of showing more forcibly the trend of the law, as produced or affected by the decisions of the widely scattered courts. It must be borne in mind, of course, that these decisions show simply the tendency as regards the definition of general principles; they do not show how either the railroads or the highway travelers (as a whole) are faring, concretely, from a financial point of view. Numerous lawsuits of this kind are settled in the lower courts, no doubt, and never get into our records; and many are compromised after being entered in court but before being tried. Undoubtedly, also, the railroads pay, as they have always paid, numerous claims having no just merit, because of the persistence of claimants and the

high cost of litigation; or in recognition of the "social obligation" of the rich to be easy with the poor.

If the article seems rather long, the reader will do well to skim through, reading only the headings; and this, even if he intends later to read in detail. The impression will be unmistakable that our judges are uniformly faithful in interpreting the law according to the dictates of common sense. Indeed, so completely do the decisions sweep away all the varied sophistries by which careless people try to mulct a railroad company for the cost of their carelessness, that one wonders why these appeals to the courts continue in such large numbers.

A review of the court decisions in this field serves also to make clear the fundamental postulate that unless and until the people—the State—shall cease to approve the running of heavy passenger and freight trains at the customary speeds —under legal sanctions of many years' standing—the duty of giving the right of way to the locomotive is grounded in simple common sense, regardless of any fine-spun theories about technical legal rights. A statute requiring automobiles to be brought to a full stop before crossing a track is a move in the right direction, and in the present semi-barbarous state of the social mind the various laws of this kind, recently passed, can do much good; but there are numerous difficulties in the way of their complete enforcement, and there still remains the fundamental fact that every normal person, in whom rational mental habits are not wholly lacking, ought to know enough to take care of himself at a crossing without even the suggestion of a state regulation. A state that has established adequate fixed warning signs 300 ft. from every crossing, has done its normal duty. The reason for enacting stop laws may be said in all soberness to be nothing more than to save the fool from his folly. Indeed the legislatures of some states have tried to embody the rational, common-sense view in their statutes, making exceptions of crossings where there is a good view of the railroad, and requiring only a slackening of speed where legislators were impressed with the difficulty of framing a stop-rule which would be fair to all drivers at all times. These experimental statutes, however, are only partly successful; and the problem still worries many state officials. Up to the present, the only progressive step on which everybody is agreed is that discussion and agitation must be promoted in every way possible; that is, get all classes of citizens to thinking seriously on this subject.

Another fundamental fact is that with crossing laws, as in the case of some other familiar laws regulating personal behavior, it is often necessary that level-headed and well disposed persons shall submit to restrictions which are needed only for the inexperienced, the unbalanced or the reckless—classes which ought never to be allowed at large on the highways. However, the number of crossing fatalities due to the error or neglect of a competent driver—a person who is reputed to have reasonably cautious habits—is so large that it is deemed entirely proper to recommend the perusal of these court decisions by everybody.

New Books

Special India Railway Progress Number of the Railway Gazette. Published by the Railway Gazette, 33 Tothill street, Westminster, London, S. W. 1, England.

This special issue of the English railway weekly gives in many well illustrated articles in 108 pages of text matter a thorough examination of the present railway situation in India, in all of its more important aspects. Anyone interested in obtaining detailed information concerning the railways in that part of the world will, in all probability, be able to find what he is seeking in this issue.

New Books and Special Articles of Interest to Railroaders

(Compiled by Elizabeth Cullen, Reference Librarian, Bureau of Railway Economics, Washington, D. C.)

Books and Pamphlets

Cairo to Kisumu, Egypt—The Sudan-Kenya Colony, by Frank G. Carpenter. Railroads of Egypt and the Sudan, pp. 151-159. Across Africa by air and rail, pp. 160-166. The Uganda Railway, p. 243-251. 313 p. illus. Published by Doubleday, Page & Co., Garden City, N. Y.

A Century of Locomotive Building by Robert Stephenson & Co. 1823-1923, by J. G. H. Warren. The history of a firm that is also the history of rail transport to a great extent. Many valuable pictures, documents, portraits and so on are reproduced. 416 p. Published by Andrew Reid & Co., Ltd., Newcastle-on-Tyne, England.

Highways and Highway Transportation, by George R. Chatburn. Especially Chapter 4, "Railroads," and Chapter 6, "Interrelation between highway and other kinds of transportation." Many interesting illustrations showing evolution of various methods of transport. 472 p. Published by Thomas Y. Crowell Co., New York.

Labor and Education. Report of the American Federation of Labor Committee on Education on Social Studies in the Public Schools. Appendices include statistics showing transportation topics studied as current events, and other school discussions. 37 p. Published by American Federation of Labor, Washington, D. C.

A Lost Lady, by Willa Cather. The Burlington Railroad of construction days enters fiction as an important "character." 174 p. Published by Knopf, New York.

Women Suffrage and Politics, by Carrie Chapman Catt, and Nettie Rogers Shuler. Railroads' attitude toward suffrage, p. 153 et seq. Concord Railway, p. 166-167. 504 p. Published by Scribner's, New York.

Periodical Articles

Consolidation of Railroads Under the Transportation Act, by W. G. Bierd. Shipper & Carrier, October, 1923, p. 379.

Co-operation Between Organized Labor and Management on the Railroads, by O. S. Beyer, Jr. As developed on the Baltimore & Ohio. Machinists' Monthly Journal, October, 1923, p. 474-476, 510.

He Makes Travelers Feel at Home on Railroad Trains, by F. G. Tredway. F. A. Travers, official host, Southern Pacific Ry. at San Francisco. American Magazine, November, 1923, p. 67-68.

Making Capital the Servant of Labor. Farmer-Labor Politico-Economic Program a Romantic Undertaking, by George T. Odell. Activities and aims of labor banks, National council for progressive political action, People's legislative service, Farmers' National Council and Labor, the railroad unions' newspaper. Dearborn Independent, October 13, 1923, p. 14.

Railroads and the Mechanics of Social Power, by Amos Pinchot. I. Can the government run the railroads? "* * * And when we take over and operate our railways, we shall discover that no administration will dare to give us such inefficient, expensive, dangerous, and dishonest railroading as we have endured for half a century." Front cover and p. 431. First of three articles. Nation, October 17, 1923, front cover and page 429-431.

*Tunnel at Gibraltar to Be Pierced As Connecting Link for Continents * * * Through Trains May Be Run for Unprecedented Distances and New Fields of Commerce Opened,* by Sterling Heilig. Project at present contemplates piercing Straits of Dover at same time, so that through trains can be run from London, England, to Cape Town, South Africa. Washington Star, October 21, 1923, part 5, p. 5.

Letters to the Editor

See America First

ST. PAUL, Minn.

TO THE EDITOR:

The expression "See America First" is commonly seen and heard, yet when traveling on the railroads it seems as though a conspiracy prevailed to prevent one from seeing America first, or last, since the majority of coaches have most inconvenient windows for sightseeing. I came into Chicago recently on the Twentieth Century Limited, one of the finest trains on the continent, but it was impossible to see the country through which we passed with any degree of pleasure on account of the screens in the window and also because the observation car could hold only a small per cent of the passengers.

In a third-class coach on a small local line in Switzerland, passengers have a pane of glass 40-in. square that lowers from the top so that they can enjoy the scenery. Why is American railway management so far behind that of Switzerland? This is a feature that might well be studied with a view to aiding passengers in their efforts to "See America First."

J. W. HAMILTON.

Funding Depreciation Reserves

PITTSBURGH, Pa.

TO THE EDITOR:

Is Senator Cummins' proposal that the railroads of this country be required to fund their depreciation reserves a necessary procedure?

With all due respect to Senator Cummins, who is, without doubt, the best posted man on transportation matters in Congress today, and granting that his legislative intentions toward the steam railroads of the country are constructive rather than destructive, it would still seem contendable that new fields of governmental regulation of railway activities should be entered with care and conservatism. The purpose for which all commercial corporations are organized is that of making money. The first duty of those to whom is entrusted the employment of organized capital is toward the owners of said capital, hence the final object to which all guns must be focussed is the figure represented in the profit and loss account. Broadly speaking this is obtained by revenues less expenses and, as far as the railroads of the country are concerned, Congress has laid the hand of government regulation on operating revenues as a whole and in a greatly detailed manner and the operating expenses insofar as concerns the wages the carriers must pay the rank-and-file of their employees.

This leaves untouched by government regulation only the other arm of the expense account; i. e. that concerned with the purchase and use of materials, which is so entirely governed by market conditions that the railway executive has little opportunity for the employment of that individual genius in the operation of his plant that distinguishes the successful corporation from the unsuccessful. The only other field for the exercise of such genius is that which in the I. C. C. classification of accounts lies between the figure known as "net profit from railway operations" and the profit and loss statement; i. e. the income statement. It is this field which Senator Cummins now proposes to enter by legislative enactment and curtail individual corporate decisions as to the employment of cash represented by the depreciation reserves.

A good accounting definition for depreciation has been stated as "that inevitable loss which occurs to a perishable asset from the time of its installation for operating purposes until its retirement." Of course, there may be, and often is, minor depreciation even before installation and to the salvage after the asset retirement but, for the general purposes of depreciation chargeable to operations, the above definition seems to cover the ground. As it is a loss actually sustained by reason of its retention and use in operations, it should be ascertained as nearly accurately as possible and the cash thus retained be not subject to distribution as dividends (indeed it is unlawful to distribute such cash in dividends) and, therefore, is required by good accounting to be set up as a reserve, so ear-marked that there will be no question in the mind of even the casual reader of the balance sheet as to what the figure represents.

One of the reasons for the setting of such a reserve is to provide for the replacement of the retired assets when their operating life has expired and with this thought in mind all good financial executives will keep their one eye on the depreciation reserve figure and the other on the liquidity of an equal amount of assets, giving due consideration to the unexpired life of the assets under depreciation. Right here is the field in which the financial executive has an opportunity for the exercise of his genius and the larger the value of perishable assets the larger the field for the exercise of his financial ability.

It is fundamental in the employment of funds that "the earning power of funds is affected transversely by the degrees of their liquidity." Of course, the returns from invested capital depend on many other things but the rule is fundamentally true. For example, funds deposited with reliable banking firms on checking account usually draw two per cent on daily balances above a certain minimum, while those deposited with the same institution on time deposit, under certain regulations effecting their liquidity, will draw four per cent, and those invested in governmental, municipal, school or corporate bonds will draw up to six or seven or even a higher rate according to the money market; and those employed in your own plant will, theoretically at least, pay more. This theory seems sound, for the reason that, if the powers in whom is entrusted the employment of capital did not feel that such employment would bring its owners a greater return than could be obtained by loaning it out to others, there would be no inducement so to employ it. Such employment in a "going concern," however, often reduces its liquidity almost, if not entirely, to the vanishing point.

If such an employment of funds represented by depreciation reserves is to be prohibited by legislative action it may mean, in many cases, that capital for improvements, such as elimination of grades, curves, etc., and other improvements having for their object the reduction of operating costs, will have to be obtained by flotation of bonds or other obligations at a higher rate of interest than is obtained from the investment of the moneys represented by the depreciation reserves.

Thus in the case of a large corporation having say $500,000,000 invested, $200,000,000 of which is in perishable assets or with an operating life ranging from 10 to 30 years, with a general average life of 20 years, and allowing for 20 per cent salvage value, a general average depreciation rate of 4 per cent, will mean a yearly depreciation of $8,000,000. If individual financial genius could obtain over that of governmental regulation an excess of two per cent earnings, it would mean a difference of $160,000 per year and governmental regulation would mean a loss of that amount to the corporation. As the invested capital of the railways of the country is given by the I. C. C. as $18,900,000 as of December 31, 1919, and, as the depreciation figures are cumulative from year to year, it will be seen the depreciation reserves of all the railroads equal an enormous sum.

It is true that care should be exercised to avoid the tying up

of such moneys so as to handicap the replacement of assets at the expiration of their operating life or require new financing to provide for the replacement and to this end financial executives should be furnished annually with a schedule of all individual assets or class of assets showing the following information:

Date of installation.
Estimated salvage value at expiration of operation life.
Net operating value.
Estimated service life.
Rate of depreciation.
Present depreciated value.

The second and fourth items should be obtained from the best sources available and should represent the combined judgment of auditor, chief engineer, mechanical superintendent or others who are most capable of making accurate estimates. If obtainable, mortality tables compiled from the histories of similar assets already expired should be used. With the estimated service life obtained from the best sources possible, it will many times be found necessary to revise estimates when half or three-fourths of such estimated life has expired in order that the figures may the more nearly conform with the date of actual retirement. This schedule should then be summarized showing the replacement capital required the first, second, third, fourth and fifth years thereafter and thus would show the financial executive at a glance what he must figure on and enable him to regulate the liquidity of the company's assets accordingly. There is no doubt but that the relation of the liquid assets to the depreciation reserves is a matter to be watched and may become a danger signal, but why flag the financial engineers of the country's railroads and, through the switch of "government regulations," run them in on the side track of "less earnings on their funds" 10, 15 or 20 years before they reach the danger zone?

This question will be discussed at a public hearing in the offices of the commission at Washington beginning November 7, and it is to be hoped that the outcome of such public discussion will be such as to discourage legislative interference.

I believe the financial operations of the railways of the country are, for the large part, in the hands of competent men and can safely rest there without the intervention of government regulation.—D. R. P.

Advisability of High Speed

NEWTON CENTER, MASS.

TO THE EDITOR:

The old and oft-renewed discussion of railway speed has again been revived, as usual, in the English press, where, as a general rule, the matter sooner or later achieves the proportions of a first-class controversy.

Now, I am not interested in this subject from the purely controversial point of view, nor do I believe that the *Railway Age* is either. There are, however, one or two important points which are worth considering from the American standpoint. Be it granted, from the very start, that the speed of our New York-Washington and New York-Boston express trains is much below that on the world-famous London-Plymouth run of the Great Western Railway of England, over an equivalent distance. Just what does this prove? Why, merely that there is a demand for a certain rate of speed on the English run which is not duplicated over here. In other words, if the American public called for a four-hour train between New York and Washington, the train would be forthcoming, without a doubt! And if the people here were willing to make a similarly timed train a paying proposition on the New York-Boston run, they would get just what they paid for!

The smartly timed trains on the Philadelphia & Reading come in for much favorable comment, notably those running between Camden and Atlantic City. We may be pleased with this concession to our national pride, while deprecating the motives back of it. For it is obvious that our overseas friends are disposed to regard such running as the criterion by which all other American railroading should be measured.

It is probable that there was more fast running over long distances 20 or 30 years ago than there is today, and if the managements "put the soft pedal" on such performances, it was only because they did not pay. Certainly the day has long since passed when it was considered good policy to run abnormally fast trains merely for advertising purposes. The ideal aimed at today is to make every train pay its own way and get over the road with the least possible disturbance to the schedules of other trains.

This fact has not, apparently, reached some of our good overseas friends as yet; for one of them, in the course of some comments printed in an English railway periodical, falls into the common error of drawing comparisons between the speeds of trains without reference to all factors having a bearing on the case. He speaks of a Pennsylvania train, on which he was a passenger, going at the rate of 65 m.p.h., and was passed, as though "standing still" by a Jersey Central train which he estimates must have been making over 80 m.p.h. This is very interesting, indeed; but candor compels the comment that it proves nothing. Aside from the fact that 65 m.p.h. is a fairly respectable pace, it is reasonable to conclude that the Pennsylvania train was proceeding according to schedule, and that if any higher rate of speed had been required, it would have been applied forthwith! It should be well known by this time that the engines used in through passenger service on the Pennsylvania are capable of much greater speed than the rate at which they are normally run. In any case, the enginemen in charge of them are not concerned with what is going on over on some parallel or adjoining railway.

Possibly it is the custom in England—though I doubt it—to "race" whenever a similar situation develops. What would become of schedules and the orderly handling of traffic if such an idea "took hold" over here may be left to the judgment of any experienced observer.

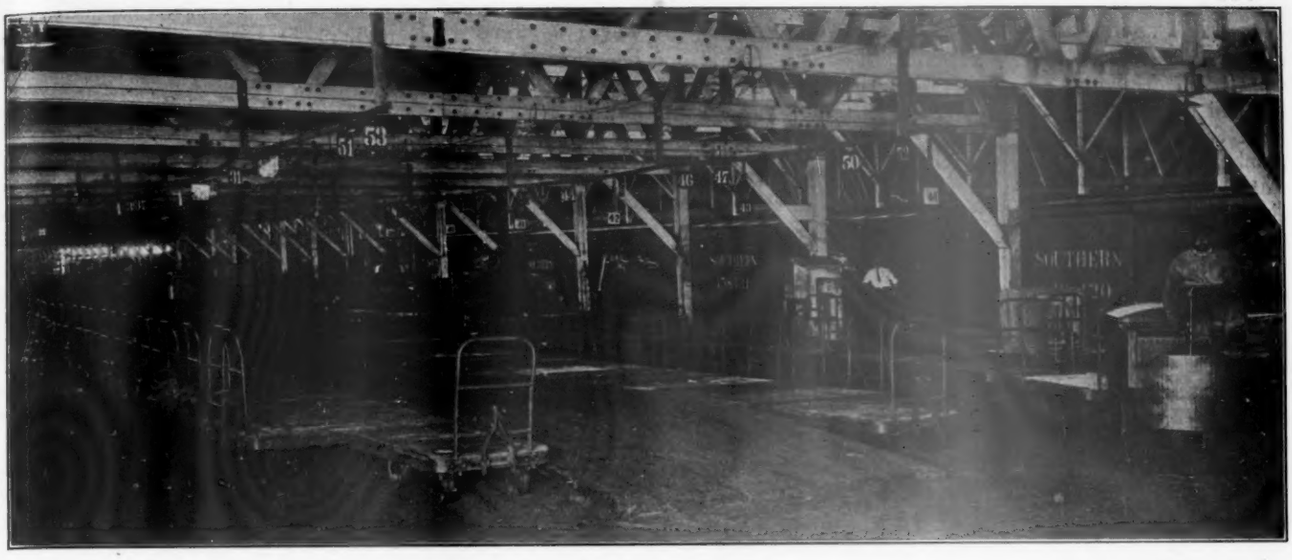
American railways are willing and ready to give their patrons anything that the latter are willing to pay for; but they can scarcely be blamed for refusing to "lay out the whole road" for the benefit of some excessively fast train that the public will not support.

A residence of some years here in New England has familiarized me with the branch line problem and its attendant expense, even with train movements reduced to a minimum. It is not at all likely that the New England roads are the only ones confronted by this question and faced with the necessity of maintaining unprofitable spurs on the earnings from main routes. And this is only one of the perplexities that vex railway managements! There are plenty of others to prevent officers from sleeping too heavily at night without wishing half a dozen—or mayhap, half a hundred—"cannon balls" on them, wherewith to add to their worries and the chances of a "pile-up."

This speed question has its romantic side and its "sporting side"—the latter much featured in England, but, in the final analysis, it comes to a business proposition. If it is "bad business" here, we want nothing of it. Sixty miles an hour is fast enough for any man to ride; fast enough, anyway, for all practical purposes. The day may come when 80 or 90 will be considered right, but there will have to be some special arrangements for keeping the road clear of freights and locals, not to mention autos at grade crossings.

Just one thing more. The people who howl loudest about this chain lightning business probably do not spend 50 cents a year on railway travel, nor have they any realization of the great labor and expense connected with the maintenance of an unusually fast train.

It seems to me that the great American systems are wise in committing themselves to a policy of rational railroading in which safety really is first! ARTHUR CURRAN.



A Transfer Platform Set-Up Preparatory to the Arrival of a Steamer

Developing Lower Costs for Handling Freight

Southern Railway Pays for Tractor-Trailer Installation at Pinners Point, Va., Out of Savings Produced

SINCE MAY, 1922, the Southern railway has been operating tractors and trailers at its water and rail terminal at Pinners Point, Va., across the Elizabeth river from the city of Norfolk for the handling of car load and less than car load freight. Less labor has been required and the cost per ton has been reduced by its use to as low as 9 cents on certain commodities with monthly averages as low as 35 cents for the terminal as a whole. An unusual feature of the installation was the fact that the equipment was to be paid for, by agreement between the manufacturer and the railroad, out of the savings which it would effect. This was done in less than ten months.

A Wide Variety of Movements is Possible with Tractors and Trailers

Class of Freight Presents Variety of Movements

Pinners Point is the Southern's deep water and rail terminal and includes three pier units, each of which is assigned to a definite movement, such as southbound, northbound and export. The tractor-trailer installation is, at present, concerned almost entirely with the southbound unit although it is used to some extent for inter-connecting and other services between the other piers. It was, however, designed only for the one pier and is not of sufficient size to handle more than that. The handling of the freight at Pier I (the southbound unit) presents a variety of movements and includes the unloading of ocean going vessels through hatches; bay steamers, with strict passenger schedules, through side ports, and off-shore and in-shore barge transfer of miscellaneous car load and less than car load freight to cars.

Local l. c. l. Freight on Barges Is Loaded on Trailers Which Are then Made up in Train Order and Pulled

On the average, from 30,000 to 40,000 tons of freight are handled monthly at Pinners Point and prior to May, 1922, this work was performed by truckers using two-wheel hand trucks. By very efficient control the complete platform handling costs had been reduced to 49 cents a ton,

based on wages of 35 cents per hour for truckers and 40 cents an hour for stowers, or a cost less than one-half of what it had been during the war when it rose to a dollar a ton and higher. Under this system the freight was trucked from the steamers or barges direct to the board or station number opposite the car for which the freight was intended, where it was deposited on the floor. In order to obviate double handling, the same labor that trucked the freight from the ships or barges, trucked it to the board or loading number, the cost of the longer trucking being pro-rated by agreement between the railroad and the steamship companies. The cars were set up in train order on four tracks down the center of the pier, which is 806 ft. long and 190 ft. wide. At the cars the railroad maintained an average of seven to nine checkers, each with from seven to eight truckers and stowers. These forces checked and trucked the freight from boards or loading stations into the cars and stowed it. The car capacity of the pier is 80 cars on the center four tracks and 15 cars on three short stub tracks at the in-shore end.

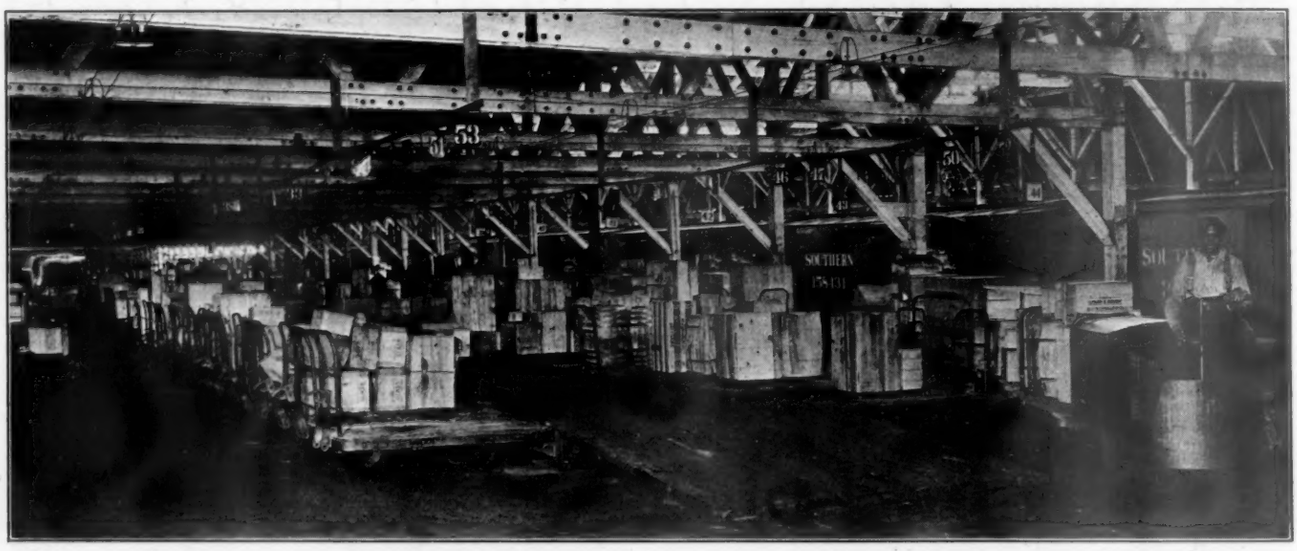
Tractors Installed on a Pay-From-Savings Plan

In May, 1922, it was proposed by the Mercury Manufacturing Company, Chicago, to make an installation of electric tractors and trailers for the handling of this southbound freight, the equipment to be paid for by the railroad out of trucking. As stated earlier, the total price of the tractor equipment was paid in full in 10 months out of the actual savings which are shown in the following table:

Month	Tons	Previous cost per ton	Cost per ton by tractors	Amount saved and paid
May	37,572	.49	.38	$4,132.92
June	28,002	.49	.40	2,520.18
July	32,722	.49	.36	4,253.86
August	35,991	.49	.36	4,678.83
September	28,216	.49	.36	3,668.08
October	34,939	.49	.39	1,240.47
November	45,170	.49	.3776	5,077.11
December	32,826	.49	.3922	3,210.39
January	43,793	.49	.3827	4,698.99
*February Final payment to close the account				1,415.40
				$34,896.23

*Deductions made for over payment in July, August and September, due to change in wage rate.

While the piers are wide the tractors do not depend upon the open spaces for operation, but in general use the old runways or paths of travel followed before by the hand trucks. The pier floor is of wood and in fair condition. Runways had been provided for the hand trucks. These runways consisted of sections approximately 12 ft. wide, built up from planking laid diagonally, since the use of planking laid in this manner facilitates the movement of equipment through the reduction in man or machine power required. In order to speed up the tractor movement still more, these runways



One End of a Transfer Unit During Unloading Operations

the savings the tractors could produce compared with hand trucking. Under the plan of the installation, the railroad did not specify or govern the amount or kind of equipment to be used since the responsibility rested solely upon the tractor company. For this reason, it was possible for the company to install at one time, sufficient mobile units to handle the freight economically and efficiently. Four standard Mercury tractors of the twin steering wheel type (steering wheels spring suspended and placed closely together, giving a short turning radius), each equipped with 42 cell, A.6 Edison batteries, and 250 standard trailers were utilized. Including the motor generator, charging panel and transformers, etc., the equipment cost amounted to $34,896.23.

The costs at Pinners Point are figured on a basis of the total tonnage handled by all three piers. During the first month of tractor operation the tonnage handled was 37,572 and the savings effected was 11 cents per ton over the old method or $4,132.92. The second month's tonnage was 28,002 and the saving 9 cents per ton. The railroad combined the two months' operation and made the first payment on the tractor equipment of $6,653.10, the actual saving which the new system had produced over the previous method of hand

are to be covered with metal. The tractor trains run between piers over uncovered plank runways. A solid car set-up is used and the trailers are taken through cars without the use of bridges or crossovers.

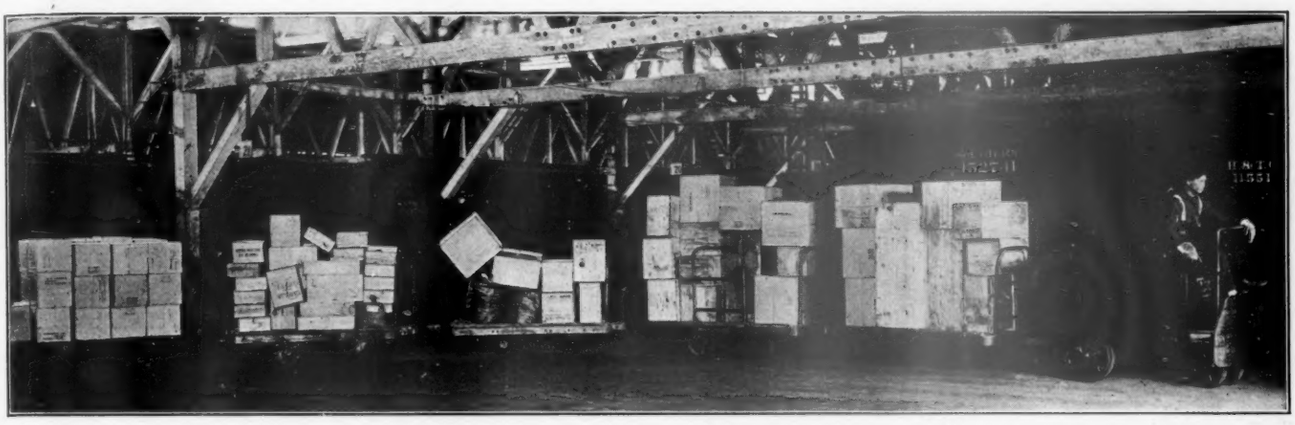
Tractors Permit of Unique and Efficient Method

Due to the method of stowing freight the shipments received from the bay steamers are badly mixed up. There is a further handicap that these steamers operate upon a strict passenger schedule with the result that the freight must be unloaded from them at the highest possible speed. Under the old method where hand trucks distributed the freight direct to the board numbers, the necessary speed could only be secured by the use of a large number of truckers. This handicap has been obviated by the system which the Southern has installed. In order to make the hand truck haul as short as possible, utilizing the tractors and trailers for the long haul, and likewise to keep from flooring the freight, two separate "transfer units" have been installed, one on each side of the pier. Each of these units consists of two platforms 60 ft. long by 9 ft. wide at trailer deck height with ramps at each end. One is located on each side of the main

gangway alongside which the bay steamers berth. The empty trailers are backed up along each edge of the platforms, which thus have a capacity of 18 trailers to a side or 72 for the entire unit. Additional trains of empties are pulled in on both sides of each platform.

In most instances it is not practical to load the trailers directly on the passenger steamers because of the method of stowing freight. For this reason stevedore gangs which remain with the steamer while it is in the harbor, hand truck the freight out of the steamers, passing between two "freight readers" at the head of the gangway who mark upon each package the board number to which it should go. The trucks are then wheeled up on the platforms and in many cases directly on to the trailers, and the loads dumped on the proper trailers according to the board numbers hung above the platform set-up. These numbers above the trailers correspond to the board numbers used in the main set-up of the freight cars. After a truck has dumped its load, it passes off of the far end of the platform and back to the steamer to secure another load, making this a short and fast one-way trucking travel. In case one hand truck has packages upon it for both platform units, it is wheeled up to a special man between the two ramps who removes the packages for one platform, and who, in case he has any packages for the platform to which the truck is going, places them upon it, after which the truck proceeds in the regular manner. This small item of separation of packages to prevent back trucking has resulted in a saving varying from $10 to $15 a day.

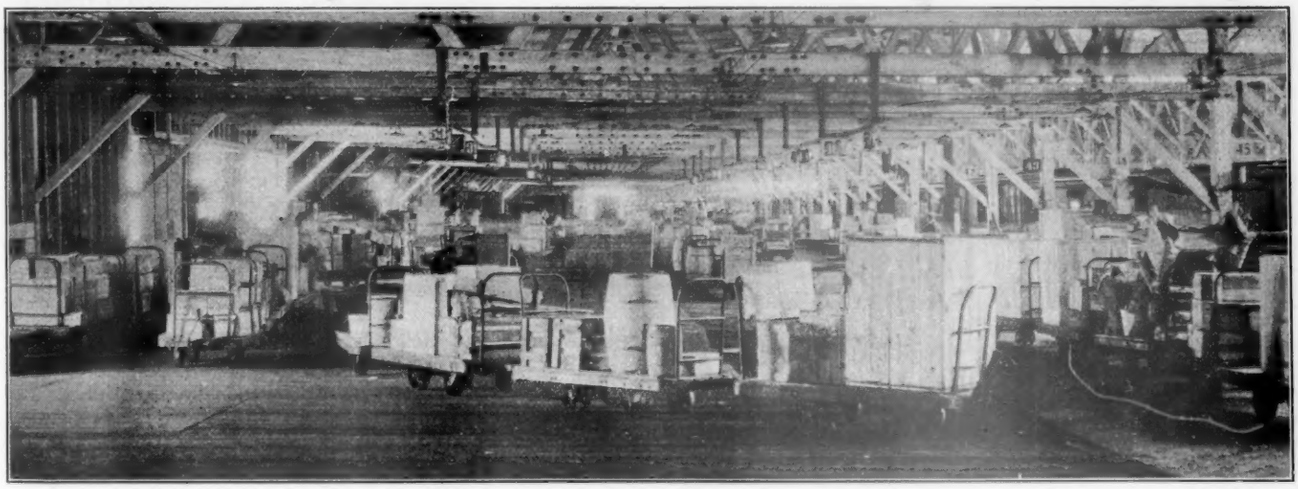
As soon as a trailer is loaded it is pushed away from the platform and replaced by an empty one. This is followed until sufficient loaded trailers have been pushed away to form a tractor train, at which time the trailers are coupled up and hauled away by one of the tractors. Owing to the fact that the trailer platform set-up is identical with the freight car set-up the trailers come in proper car and station order, and all that the tractor has to do is to run along the line of cars, dropping off the trailers at the proper points and picking up empties on the return trip. As soon as the operation is well under way and sufficient loaded trailers have accumulated to make up additional trains, the tractor operators drop their empties alongside the platform and immediately couple up to loaded trailers for further distribution.



Assorted Shipments from a Steamer, Trailers Being Dropped off at Proper Cars

Installation Permits Regular Employment of Normal Forces

Under this plan only enough men are employed in the pier to operate it under normal average conditions, peak operation of the nature described being handled chiefly by steamer forces. Ordinarily about 50 men hand truck from steamers to transfer platforms with two men on each platform to help stow the freight on the trailers where this is necessary. The average pier force consists of 4 tractor operators, 7 check clerks, 14 stowers, 4 platform men (in charge of placing empties at the platform and making up loaded trailer trains), and two freight readers. The 7 checkers and 14 stowers, i. e., two stowers to one checker, are handling practically the same amount of freight per month as was formerly handled by the same number of checkers with from 7 to 8 truckers and stowers each. This is made possible through the fact that the loaded trailers can be dropped alongside the cars where they



Loader Trailer Trains Made Up in Car Order for Distribution by Tractors

can be pushed in and unloaded as the stowers come to them, thus distributing the work evenly over the day. An interesting feature of this part of the method is the fact that all freight is checked inside of the car, the checker taking his position in the car instead of outside of it, as is commonly the case. In this way a positive and direct check has been secured that has practically eliminated the misshipment of miscellaneous freight. No freight is floored, but it is kept on the trailers until the checkers are ready for it, when the trailers are brought into the cars and the freight stowed in the usual manner.

A Car Load of Bagged Sugar Being Moved from Barge to Car

The Trailers and Platforms Are at the Same Height

Exceptionally Low Costs in Bulk Commodity Movements Are Secured

Considerable freight is received in the form of car load shipments which are delivered chiefly by barges. Under such conditions, the railroad places the trailers in the barges or steamers and loads an average of about a ton to a trailer. These loaded trailers are made up in trains of from three to five or more and hauled with one tractor to whatever car the shipment is intended for. Considerable sugar and boxed soap is received in this manner and some very low costs have been obtained in handling it. In a recent check, 400 bags of sugar and 550 boxes of soap were moved from barge to car in one hour. Four men were used on the barge, one man operated a tractor and four men were in the car, and the total cost for labor was 9 cents a ton.

As stated earlier in the article, costs at Pinners Point are figured on the basis of the total tonnage handled at the terminal. During each month, in order to secure a constant check on the labor costs, a daily report of each labor unit is required. This report shows the number of men employed, the tons handled one time, the total cost and the cost per ton. For obvious reasons, it is often necessary to floor freight in the northbound and export piers, later picking it up again and loading it on steamers, etc. In the monthly report, this is shown only as so much tonnage, while in the daily report it is shown according to the times it is handled, thus giving a prompt check on the cost of moving it. A typical daily report is shown as follows:

TYPICAL DAILY COST REPORT

All Units—July 9, 1923
Truckers, 33 cents an hour. Stowers, 38 cents an hour.

	No. Men	Tons	Cost	Cost per ton
Southbound Pier No. 1	31	664	$106.91	16.00 cents
*Northbound Pier No. 2	31	576	100.18	17.39 "
Export Pier No. 4	31	459	108.50	23.63 "
Stevedores	39	478	115.83	24.23 "
**Chesapeake Line	54	267	111.39	41.71 "
Transfer Gang	11	261	36.80	14.09 "
***Passenger Gang	8	89	25.56	28.73 "
P. & N. Steamship Line	20	237	50.00	21.09 "
Totals and average cost	225	3,031	655.17	21.61 "

* Large packages—average hand truck load about 400 lb.
** Long truck on northbound from cars.
*** 8 hours icing cars.

The operation at the Pinners Point piers is under the direct charge of J. S. Parker, agent, who directed the installation of the tractor-trailer system in the southbound unit and worked out the methods which have been described here.

The Law for the Motorist at Railroad Crossings

Rights and Duties of Automobilists and Others, as Defined in Recent State and Federal Court Decisions

THE FOLLOWING is a brief survey of the highway crossing injury decisions, so far as the contributory negligence of the plaintiff has been in question, of the State Supreme courts and federal courts, reported during the six months from January 1 to June 30, 1923.

These decisions are grouped under two heads (1) where it was held that a verdict was properly directed for the defendant, or should have been so directed, because of the contributory negligence, as matter of law, of the plaintiff; (2) where the question of contributory negligence was held to be one which must be left to the jury.

Although each case must be considered on its own merits, it will be seen that in the great majority of these decisions the plaintiff was held guilty of contributory negligence as a matter of law, notwithstanding the general rule that contributory negligence is usually a question for the jury. The reason for this is to be found in the generally accepted rule that where there is an omission on the part of the traveler of the duty to look and listen in both directions before attempting a crossing, at a time when he can effectively do so, and this omission, concurring with any negligence of the railroad, is a proximate cause of injury to him, he is guilty of contributory negligence as a matter of law; and it is the duty of the trial court to direct a verdict for the defendant. And even in jurisdictions in which the duty to look and listen is not laid down as an absolute rule of law, verdicts are often directed or new trials granted for contributory negligence of the traveler in not looking and listening. Some jurisdictions, such as Pennsylvania and Louisiana, add the requirement to stop, to look and listen.

In a few jurisdictions there is a tendency of the courts to leave the question of contributory negligence to the jury in nearly all cases. This is the case, for example, in Iowa, which supplies about one-third of the cases noted below, where the question was submitted to the jury. In two or three States the question of contributory negligence is, by statute, required to be submitted to the jury in all cases.

In the great majority of the cases held to be for the jury, it will be noticed that the traveler's view of the track was obstructed.

The reasonable deduction from this may be that, while it is incumbent on the traveler to exercise a higher degree of care where his view is thus obstructed, in such cases it is not always clear enough, whether he did his duty in the matter of looking and listening, to warrant the Court in deciding the question as a matter of law.

I.—Contributory Negligence as Matter of Law

Trains Have Right of Precedence Over Automobiles

Since both train and automobile cannot pass an intersection at the same time, one or the other must have the right of precedence, which common sense and the public welfare dictate should be accorded to railway trains. This is the general rule, recognized and accorded by the public.—San Antonio & A. P. v. Singletary (Tex. Civ. App.) 251 S. W. 325, Huddy on Automobiles, §556.

Track is a Warning of Danger

A railroad track is of itself a proclamation of danger, imposing upon the traveler at the railroad crossing a positive duty of using care to avoid trains, ib.

Obstructed View Requires Extraordinary Care

Obstructions which would conceal an approaching car require the traveler to approach the crossing with extraordinary care, ib.

Minor Track as Well as Main Track a Warning of Danger

The Missouri Court of Appeals says: "A railroad track is, in and of itself, a warning of danger. Generally speaking, this is true of a switch track the same as a main line track. Morrow v. Hines (Mo. App.), 233 S. W. 493." A person before venturing on a crossing should look and listen for trains in both directions, and this duty continues until the dangerous locality is passed.—Henderson v. St. Louis & S. F. (Mo. App.), 248 S. W. 987, affirming judgment for defendant.

Where Traveler's View Unobstructed

Where an approaching train is in full view of an automobilist when within 25 ft. to 40 ft. of the track, his not looking for it is not excused by his statement that he was looking for trains on the main track beyond.—Nichols v. C. & A. (Mo. App.), 250 S. W. 627, reversing judgment for plaintiff.

A pedestrian crossing without looking for trains at a much traveled street crossing, struck by a backing train of flat cars, was held contributorily negligent as matter of law.—Sullivan v. G. & N. I. (Mo. App.), 247 S. W. 1010, reversing judgment for plaintiff.

Where the approaching train could be seen at any time after the automobilist reached a point 70 ft. from the crossing he was held guilty of contributory negligence as matter of law.—Atchison, T. & S. F., Circuit Court of Appeals, Eighth Circuit, 285 Fed. 97, reversing judgment for plaintiff.

A motorist became confused at the approach of a train, lost control of the car, jumped out and allowed it to run on the crossing, where it stopped between the rails and was demolished. In an action for its loss, where it appeared plaintiff had an unobstructed view of the track when the train was half a mile away, the Montana Supreme Court held her guilty of contributory negligence.—Normandin v. Payne (Mont.), 212 Pac. 285, affirming judgment for defendant on directed verdict.

An automobilist who had an unobstructed view from 578 ft. at a point 40 ft. from the track, and for 902 ft. at a point 10 ft. from the track, was held guilty of contributory negligence.—Gallagher v. N. Y. C., 120 Misc. 207, 198 N. Y. Supp. 855, setting aside verdict for plaintiff.

The Washington Supreme Court held an automobilist and his minor son contributorily negligent as matter of law in failing to look for trains before attempting a crossing.—Harris v. Spokane, P. & S. (Wash.), 212 Pac. 187, affirming judgment of nonsuit.

Physical Evidence That Traveler Must Have Seen Approaching Train If He Had Looked

The Minnesota Supreme Court holds that the testimony of a person injured at a crossing that before attempting

to cross the track he looked up and down it to ascertain whether it was clear, and saw no train approaching, cannot be accepted as credible in the face of the physical and indisputable fact that a train of cars was then in close proximity, moving rapidly toward him, and plainly to be seen by a glance of the eye in that direction.—Jensen v. Minneapolis, St. P. & S. S. M. (Minn.), 191 N. W. 908, affirming directed verdict for defendant.

The New York Appellate Division holds that the driver of a wagon who when more than 20 ft. from the crossing had a clear view of the track for more than a quarter of a mile, a train being in plain sight had he looked while he walked his horse that distance, was contributorily negligent as a matter of law in not looking, though he did not hear a warning signal or the noise of the train.—Barry v. Rutland, 203 App. Div. 287, 197 N. Y. Supp. 432, affirming judgment for defendant and order setting aside verdict for plaintiff.

Views of Track Obstructed

The New York Appellate Division holds that a truck driver whose view of an approaching train was almost wholly obstructed by buildings, who approached the crossing at the rate of 10 to 12 miles an hour and did not see the train until his front wheels were on the track, was guilty of contributory negligence.—Rayner v. Rutland, 204 App. Div. 135, 198 N. Y. Supp. 261, reversing judgment for plaintiff and dismissing complaint.

Time to Look Before Crossing

About a half mile from the crossing the train came through a cut between two bluffs. At the crossing the track was 4 ft. above the ground level, and was reached by an approach 30 ft. long. The crossing was very rough and there was a depression between the rails. The Kansas Supreme Court held that the condition of the grade and crossing did not excuse the plaintiff's negligence. When 200 ft. from the crossing he looked for a train. When he was 60 ft. from the crossing, he looked again. It was held he should have seen the train, which was 900 ft. away, running at from 50 to 60 miles an hour.

The fact that the plaintiff would have been obliged to turn in his seat and look backward is of no consequence.

"The time to look is when he is about to cross. That is the time when he is about to encounter the danger portended by a railway crossing, and it is not enough that he look at a point some distance from the crossing, when looking on nearer approach would reveal danger."—Reader v. Atchison, T. & S. F. (Kan.), 210 Pac. 1112. Judgment for plaintiff reversed, and directed for defendant.

The Washington Supreme Court holds that an automobilist who could have seen an approaching train when he was at almost any point from about a quarter of a mile from the crossing to within 75 ft. of it, and who stopped and listened within 10 ft. of the crossing when his view was obstructed by an embankment, was guilty of contributory negligence in failing to look when he could see.—Dee v. Northern Pacific (Wash.), 215 Pac. 11, affirming judgment for defendant notwithstanding verdict for plaintiff.

An automobilist's testimony that he looked both ways when running about four miles an hour about 50 ft. from the track, and then began to shift his gear, too late to stop, was held to show contributory negligence as matter of law.—Anderson v. Davis (Mo. App.), 251 S. W. 86, reversing judgment for plaintiff.

An automobilist who had 19½ ft. between himself and the track after passing an obstruction of stock pens and standing cars, but did not slacken his pace of 10 miles an hour and was struck by a fast train which he could have seen had he looked, was held guilty of contributory negligence as matter of law.—Dickey v. Wabash (Mo. App.), 251 S. W. 112, reversing judgment for plaintiff.

Looking in Both Directions

Where in one direction a train could have been seen when a mile away and in the other 600 ft. away the North Carolina Supreme Court holds that the traveler must look and listen in both directions although the plaintiff had testified that his view was obstructed by a cane patch and a hedge.—Plyler v. Southern (N. Car.), 117 S. E. 297, affirming judgment for defendant.

The New York Appellate Division holds that an automobile truck driver approaching the crossing of four converging tracks at 8 miles an hour, who leaned out of the left side of his cab to look, turning his back on a clear space of 600 ft. along a branch line on which a train was approaching, was guilty of contributory negligence as matter of law.—Chamberlain v. Lehigh Valley, 199 N. Y. Supp. 708, reversing judgment for plaintiff, and dismissing complaint.

Contributory Negligence of Guest in Automobile

The Missouri Court of Appeals holds that if a guest in an automobile saw or could have seen a train had he looked in time, by the exercise of ordinary care, to inform the driver of its approach, and thus prevent collision, his failure to do so is contributory negligence precluding recovery for his injuries.—Sorrell v. Payne (Mo. App.), 247 S. W. 462, judgment directed on verdict for defendant.

To the general rule that the negligence of the driver of an automobile is not imputed to the passenger unless the passenger has the right to control the management of the car, Section 3230, South Carolina Code, 1912, makes the exception in crossing cases that if the person injured or the person having charge of his person or property was guilty of gross or wilful negligence or was acting in violation of law, contributing to the injury, the railroad will not be liable, and the South Carolina Supreme Court holds that this exception is applicable where the driver's unlawful act was going on a highway with an automobile having defective brakes, though the passenger did not know of the defective brakes.—Neely v. Carolina & N. W. (S. Car.), 117 S. E. 55, affirming judgment for defendant.

Pennsylvania Stop, Look and Listen Rule

To slacken the speed of a truck on approaching a crossing while shifting the gear is not a compliance with the Pennsylvania stop, look and listen rule.—Schofield v. Director General (Pa.), 120 Atl. 449, affirming judgment for defendant.

Louisiana Stop, Look and Listen Rule

In Louisiana the attempt of an automobilist to cross a railroad without stopping, looking and listening is contributory negligence, barring recovery, though the trainmen are also negligent; and this must be done when stopping, looking and listening will be effective.—Young v. Louisiana Western (La.), 95 So. 511. Judgment for plaintiff in case tried by lower court without a jury, reversed and annulled.

When View Obstructed Automobilist Must Stop—Missouri

The Missouri Supreme Court holds that where a motorist drove on a crossing without looking until the front wheels of his car were on the first rail of the track, he was guilty of contributory negligence as matter of law. It is not ordinary care to look and listen after these precautions are useless. This court also holds that when the motorist's view is so obstructed that he can neither see nor hear an approaching train, he must stop to look and listen.—Monroe v. Chicago & Alton (Mo.), 249 S. W. 644, reversing judgment for plaintiff.

Alabama Rule to Stop, Look and Listen

In Alabama "it is well settled that one attempting to cross a railroad track on which cars and locomotives are likely to

be running must stop and look in both directions and listen before going thereon," and violation of this rule by an automobilist will bar recovery for simple negligence of the railroad company.—Louisville & Nashville v. Rush (Ala.), 94 So. 577, reversing judgment for plaintiff. But where several tracks lie alongside, the same court holds that the traveler is not required, as matter of law, the precaution of stopping to look and listen at each track.—Cunningham Hardware Co. v. L. & N. (Ala.), 96 So. 358, reversing judgment for defendant.

Driving Automobile Into Lowered Highway Crossing Gates

The Minnesota Supreme Court holds that a plaintiff who drove her auto into the lowered railway safety gates over a street at 6 in the afternoon, half an hour after sunset, was negligent and could not recover for an injury sustained.—Hannan v. Minneapolis, St. P. & S. S. M. (Minn.), 191 N. W. 922, reversing judgment for plaintiff.

Driving Automobile on Tracks Immediately After Train Has Passed

An automobilist, familiar with a crossing, after waiting while a slow freight train passed, drove on the tracks behind the train, and was struck by a passenger train coming from the opposite direction. The Michigan Supreme Court held he was guilty of contributory negligence barring recovery.—Lamb v. Pere Marquette (Mich.), 191 N. W. 227, reversing judgment for plaintiff.

In a similar case the Missouri Court of Appeals reached the same conclusion.—Henderson v. St. Louis & S. F. (Mo. App.), 248 S. W. 987, affirming judgment for defendant.

Driving Into Standing Freight Train Contributory Negligence

The Wisconsin Supreme Court holds that an automobilist who, knowing of the track and the crossing drives his car on a very dark night into a standing freight train, is guilty of contributory negligence, precluding recovery for the railroad's violation of the statute by obstructing the highway.—Worden v. Chicago & N. W. (Wis.), 193 N. W. 356, reversing judgment for plaintiff, and ordering defendant's demurrer sustained because of insufficiency of facts to state a cause of action.

Defining a Safe Limit of Speed for Automotive Vehicles

The New York Appellate Division holds that any one approaching a dangerous crossing, where the view was partly obstructed by a house and trees, at a speed of 15 miles an hour, is guilty of contributory negligence barring recovery. A safe limit of speed in approaching a crossing was defined as "that speed at which the driver of an automobile, as he arrives at a point where he can see an ongoing train, when it is near enough to render crossing ahead of it dangerous, can stop his car, if necessary, before he reaches the track."—Grimshaw v. Rutland, 199 N. Y. Supp. 590, reversing judgment for plaintiff and dismissing complaint.

Slight Want of Ordinary Care Barring Recovery—Wisconsin

The Wisconsin Supreme Court holds that while the strict rule of ordinary care is somewhat relaxed under subsection 6 of section 1809 of the Wisconsin statutes, by which slight want of ordinary care by plaintiff will not bar recovery, that statute does not relieve a driver of the duty to look and listen when approaching the zone of danger, and at the last reasonable opportunity.—Plautz v. Chicago, M. & St. P. (Wis.), 192 N. W. 381, reversing judgment for plaintiff and directing judgment for defendant.

In cases not under this statute, slight want of ordinary care will bar recovery.—Kansas v. Chicago, M. & St. P. (Wis.), 192 N. W. 383, affirming judgment dismissing complaint. McMillan v. Chicago, M. & St. P. (Wis.), 191 N. W. 510, reversing judgment for plaintiff and directing dismissal of complaint.

Defective Automobile Brakes

Where the immediate cause of a crossing injury was a defect in the brakes of the automobile which prevented the occupants of the car from availing themselves of the knowledge of the train's approach, the car running into the train at a street crossing, the South Carolina Supreme Court held the railroad not liable for injury to an occupant of the car, although it was negligent in not giving the statutory signals.—Keel v. S. A. L. (S. Car.), 114 S. E. 761, judgment for defendant affirmed.

Pedestrian Straying From Crossing Designated for Public Use

The Mississippi Supreme Court holds that where a railroad provided a reasonably safe board crossing for the use of persons going to the station, one who undertook to cross at another and unusual place, falling into an excavation dug between the ties from 5 ft. to 15 ft. from the crossing for the purpose of carrying off water overflowing from a water tank, did so at her own peril.—Byars v. Davis (Miss.), 94 So. 853, affirming judgment for defendant.

Traveler Cannot Rely on Signals of Unauthorized Employee

The California Court of Appeals holds that the discharge of the duties of flagman is beyond the scope of employment of a baggageman, and a traveler would not be justified in relying on the signal of such employee from mere knowledge of the fact that he was a baggageman. The authority, either express, implied or ostensible, to act for the company must be shown by the plaintiff.—Reger v. Southern Pacific (Cal. App.) 210 Pac. 971. Judgment for plaintiff reversed.

Jury's Findings as to Contributory Negligence Not Inconsistent

The Texas Court of Civil Appeals construes the findings of a jury (1) that an automobilist killed at a crossing was guilty of contributory negligence, and (2) that he did not know the train was approaching when he drove on the crossing, to mean that he did not know the train was approaching the crossing because of his negligence in failing to look and listen for it, and as so construed, are not inconsistent.—Crews v. Schaff (Tex. Civ. App.), 250 S. W. 749, affirming judgment for defendant.

Inconsistent Findings of Jury

Where the general verdict of the jury was for the plaintiff, but its special findings clearly showed contributory negligence of the motorist, the Kansas Supreme Court held it proper to set aside the general verdict and give judgment for the railroad on the jury's special findings.—Rathbone v. St. L.-S. F. (Kan.), 214 Pac. 109.

Contributory Negligence of Wife Imputable to Husband

Contributory negligence of wife driving automobile is imputable to husband riding in car.—Wisconsin & Arkansas Lumber Co. v. Brady (Ark.), 248 S. W. 278.

Contributory negligence of bailee (wife driving car on her own business) not imputed to bailor (husband owning the car).—Norton v. Hines (Mo. App.), 245 S. W. 346, affirming judgment for plaintiff.

II.—Contributory Negligence Held for Jury

Whether Traveler Looked and Listened Held for Jury

Where there was some evidence that there was no headlight on the engine, no signal for the crossing, and a strong wind blowing might carry away the sound of the switch engine with which the car collided, the Kansas Supreme Court held the plaintiff's contributory negligence was for the jury.—Holland v. Missouri Pacific (Kan.) 212 Pac. 90, affirming judgment for plaintiff.

Where Traveler Looked and Listened and Contributory Negligence Held for Jury

Where the automobilist had stopped and looked and listened, his contributory negligence in proceeding to cross in front of a slowly moving train was held for the jury.—Director General v. Pence's Adm. (Va.), 116 S. E. 351, reversing judgment for plaintiff, and ordering new trial for erroneous instructions to jury.

Evidence for the plaintiff that he looked and listened and almost stopped his car where he could see in both directions and did not see the train until within 10 ft. of it, was held to make the question of contributory negligence one for the jury.—Davis v. Hereford (Ark.), 245 S. W. 833, affirming judgment for plaintiff.

So, where the evidence showed that plaintiffs looked and listened when 200 ft. from the crossing and again when 100 ft. therefrom, the view being obstructed until they were within 40 ft. of the crossing, contributory negligence was held for jury.—St. Louis-S. F. v. Whitfield (Ark.), 245 S. W. 323.

Question of Whether Traveler Misled by Flagman Held for Jury

Where the facts were in dispute as to whether the flagman gave the automobile driver the signal to go forward, or waved his flag as a warning to stop, the Iowa court held the questions of negligence and contributory negligence were both for the jury.—Dubuque Motor Express Co. v. Payne (Iowa), 193 N. W. 532, reversing judgment on directed verdict for defendant.

Automobilist's contributory negligence in crossing after he had seen the train held for jury where it did not appear he could have accurately estimated the speed of the train, which exceeded 50 miles an hour.—Zellmer v. Hines (Iowa), 102 N. W. 281, reversing judgment for defendant on directed verdict.

Whether the traveler looked and listened at the proper place is held by the Iowa court to be a question for the jury.—Swegle v. Chicago, B. & Q. (Iowa), 192 N. W. 894, affirming judgment for plaintiff.

View Obscured

The Iowa Supreme Court holds that when a motorist approached a crossing at a moderate speed, and nearly succeeded in turning his car in the direction the train was going after he saw it on clearing a building, the question of his contributory negligence was for the jury.—Combrenos v. Chicago, R. I. & P. (Iowa), 191 N. W. 158. Judgment on directed verdict reversed.

The same court holds that where a motorist approached the crossing of which the view was obstructed by buildings and freight cars, at a speed of 10 to 15 miles an hour, and was struck by a train traveling at 50 to 60 miles an hour without giving warning signals, contributory negligence was a question for the jury.—Corbett v. Hines (Iowa), 191 N. W. 179. Judgment for plaintiff affirmed.

The same court holds for the jury the contributory negligence of an automobilist approaching an obscured street crossing where he looked and listened and could have stopped his car within 10 ft., he having a right to rely, in a certain degree, on a city ordinance limiting the speed of trains to 10 miles an hour, and on the duty of the railroad to give warning signals, both of which were disregarded.—Lutz v. Davis (Iowa), 192 N. W. 15, affirming judgment for plaintiff.

The Iowa court holds that where the automobilist's view was obscured by smoke from a passing train on another track, accentuated by misty weather, whether his attempting the crossing was a question for the jury.—Alitz v. Minneapolis & St. L. (Iowa), 193 N. W. 423, affirming judgment for plaintiff.

The Iowa court holds that where, under the evidence, it could not be said with "certainty to a certain extent in every particular" that the train was within the line of vision of plaintiff, a passenger in a Ford car at the time she looked through the curtain window, the court would not say as a matter of law that plaintiff was guilty of contributory negligence, since "the law does not fix any point at which the traveler must look and listen or be chargeable with contributory negligence."—Glanville v. Chicago, R. I. & P. (Iowa), 193 N. W. 548, affirming judgment for plaintiff on remittitur from $10,500 to $8,000 for a fracture of the pelvic bone.

The Iowa Supreme Court holds that where the view of the driver of an automobile was obstructed until he was within a very short distance of the crossing, the question of contributory negligence was for the jury, it being admitted the locomotive bell was not rung and that another automobile had crossed just in front of the deceased.—McKern v. Wabash (Iowa), 192 N. W. 152, affirming judgment for plaintiff.

Where an automobile, driven slowly over a crossing where the space between the rails was not filled in, and the rails stood up several inches above the cross-ties, choked down and was struck by a train, the South Carolina Supreme Court held that if the jury believed that the crossing was dangerous in itself, requiring very careful driving of the car whether the train was approaching the crossing or not, that the view was obstructed, and that the statutory signals were not given, the crossing being a much used one, the question whether plaintiff was entitled to punitive damages was held to be for the jury.—Curlee v. Southern (S. Car.), 115 S. E. 628, affirming judgment for plaintiff.

Where the view of automobilists might have been obstructed by standing freight cars, and the sound of nearby rapids was often sufficient to drown all sound of approaching trains, the Circuit Court of Appeals, Ninth Circuit, holds that the question of contributory negligence was for the jury.—Davis v. Slocums, 288 Fed. 352, affirming judgment for plaintiff.

Where the view of the automobilist was obstructed by a station, the Circuit Court of Appeals, Second Circuit, holds that his contributory negligence was for the jury.—Delaware, L. & W., 285 Fed. 317, affirming judgment for plaintiff.

Where the view of the track was obstructed by warehouses, the Washington Supreme Court holds that the ringing of the bell and the sounding of the whistle until the crossing was reached was more necessary than under other conditions, and whether this was done, and whether failure to do so caused the injury, as well as whether the train was operated at an excessive speed under the circumstances (variously estimated by witnesses as from 20 to 40 miles an hour), were all questions for the jury.—Cline v. Northern Pacific (Wash.), 211 Pac. 878. Judgment for plaintiff affirmed.

The Virginia Supreme Court of Appeals holds that the contributory negligence of the driver of a loaded automobile truck struck by a train running at 40 miles an hour through Berryville, without notice of its approach, nor visible until 264 ft. from the crossing at the time the front of his truck was 15½ ft. from the overhang of the engine was for the jury. How fast the truck was moving did not appear. Chap-

man's Admr. v. Hines (Va.), 115 S. E. 373. Judgment for plaintiff on verdict.

Where the view of a driver of a wagon was obscured by standing box cars reaching from the crossing to a freight station 100 ft. distant, the Louisiana Supreme Court held his contributory negligence was for the jury.—Nash v. Louisiana Ry. & Nav. Co. (La.), 96 So. 14, affirming judgment for plaintiff.

The Minnesota Supreme Court held for the jury contributory negligence of motorist crossing double tracks, where a passing freight on one track obstructed the view of an approaching passenger train on the other.—McCarthy v. Chicago, M. & St. P. (Minn.), 191 N. W. 819, called by the court a "borderline case." Order denying new trial after directed verdict reversed.

Where there was evidence that the plaintiff stopped and listened at a crossing where the view was obstructed, but did not hear the train, the Washington Supreme Court held his contributory negligence was for the jury.—Adams v. Port Townsend & P. S. (Wash.), 213 Pac. 451, affirming judgment for plaintiff.

Where the plaintiff motorist testified she saw the train traveling 20 miles an hour when it was 50 ft. or 60 ft. from her, and she was 8 ft. from the track, the Kansas Supreme Court held her contributory negligence was for the jury.—Bollinger v. Schaff (Kan.), 213 Pac. 644, affirming judgment for plaintiff.

Contributory negligence of coal truck driver crossing a switchtrack in a coalyard held for jury where the evidence showed that he listened at a crossing where the view was obstructed and heard nothing, and relied on the customary warning from the bell or flagman.—Hamm v. Chicago, B. & Q. (Mo. App.), 245 S. W. 1109, affirming judgment for plaintiff.

State Statutes Making Contributory Negligence Always a Question for Jury

In Arizona it is the settled rule, as fixed by the state Constitution and the decisions, that the question of contributory negligence is at all times to be left to the jury.—Hines v. Gale (Ariz.), 213 Pac. 395, 398, where contributory negligence of motorist struck by backing train after being told by brakeman to stop, held for jury.

By section 6, Art. 23, of the Oklahoma Constitution, contributory negligence in all cases whatever is a question of fact and always left to the jury.—Missouri, K. & T. v. Perino (Okla.), 214 Pac. 907, reversing judgment for plaintiff for failure to submit to the jury the contributory negligence of the mother of a child injured at a street crossing.

The Oregon Supreme Court holds that persons crossing a track where it is impossible to see approaching trains in time to guard against injury, must take the utmost care in their own behalf, or at least reasonable care. No flagman or signalman under such circumstances can add to the warning which the track itself announces.—Slusher v. Great Southern (Ore.), 213 Pac. 420, affirming judgment of nonsuit.

Contributory Negligence of Guest in Automobile for Jury

Where there is doubt as to the facts or the inferences to be drawn from them, the question of contributory negligence of a passenger in an automobile in allowing the chauffeur to drive on a crossing without stopping to look or listen is held by the Pennsylvania Supreme Court to be for the jury.—Jerko v. Buffalo, R. & P. (Pa.), 119 Atl. 543, affirming judgment for plaintiff.

THE STRIKE of the Federated Shop Crafts employees on the Union Pacific, which began on July 1, 1922, has been officially terminated on orders from B. M. Jewell, president of the railway employes' department of the American Federation of Labor.

Illinois Chamber of Commerce Discusses Transportation

TRANSPORTATION in its relation to commerce was discussed at the annual meeting of the Illinois Chamber of Commerce at Chicago. The speakers were, James R. Howard, former president of the American Farm Bureau of Federation, C. H. Markham, president of the Illinois Central, and Ralph B. Heilman, dean of the School of Commerce of the Northwestern University. Dean Heilman's subject was, "Where is Government Regulation Leading Us?" but he discussed government regulation and control of business, including both public business, such as transportation and other public service, and also such government regulation and control as apply directly to private, competitive business. Mr. Howard spoke on the transportation question from the standpoint of the farmer and showed the relation between agriculture and transportation. The subject of Mr. Markham's address was "The Effects of the Railroad Situation on Business in General," and centered largely on the influence of coastwise and internal shipping on railway transportation. Abstracts of Mr. Howard's and Mr. Markham's addresses follow

Relation of Farming to Transportation

Mr. Howard said in part: Agriculture furnishes 80 per cent of our whole basic industry. With a rapidly growing national population and with constantly improving standards of living, the farmer will command more and more attention in our scheme of things. Many people view the farmer and his farm as in a sort of sphere of isolation—a realm separate and apart from the activities of the rest of the world. This view might have been correct a century ago. Today it is a great error. No class of society or no division of industry is more completely merged into the intricacies of our national organism than the farmer. The thing that has broken the barriers, if indeed any ever existed, between classes, occupations, regions, peoples, states and nations, is transportation.

I am a firm believer in surplus production of farm, factory and mine alike. The cave man progressed only because he created a surplus. Living standards are never advanced except by the production of surpluses. People too often forget this, but a surplus is of no account unless it can be moved or transported from producer to consumer. Transportation, then, and not the products of the farm or the forest or the mine or the factory, is the yardstick by which human achievement is measured. Transportation facilities measure the advancement and the living standards of every nation today.

Although the percentage of rural population in the United States decreased in the years from 1890 to 1920, from 64.6 per cent to 48.6 per cent, or from almost two-thirds of our population to less than one-half, the acreage of improved farm lands per capita decreased during that period from 5.7 acres to 4.8, or nearly one acre, and yet the farmer not only supplied food for the ever increasing millions of urban dwellers, but increased the value of agricultural exports over imports during these 30 years by more than one hundred per cent.

The Honorable David F. Houston, formerly secretary of agriculture, said the American farmer leads the world in individual production of crops. He based his statement, taking both acreage and yield into consideration. The American farmer produces 2½ times as much as the Belgian or German rival, 2.3 times as much as the British farmer, and more than six times as much as the Italian. We may well believe this is true when we recall that the number of bushels of corn, for instance, produced in the United States increased from slightly less than a billion and a half bushels in 1890 to over three billion bushels in 1920, and the number of bush-

els of wheat during the same time increased from less than 400,000,000 to over 800,000,000 bushels. Let me call your attention to two things responsible, in part, for the increased agricultural efficiency:

First: there has been a constantly growing agricultural intelligence. The farmer today knows more about how to manage his factory, for a farm is a factory, than he did a generation ago. He has learned many things about soil physics and soil chemistry and botany, though he may not call them that.

The second contributing factor in this remarkable agricultural development is that of improved machinery. Neglectful and inconsiderate as each or either might have been of the other, the farmer and the railroad and the implement manufacturer have had a simultaneous, parallel and inseparable career.

The first or nearest link in farm transportation is the highway. This the farmer uses for business purposes in relatively larger measure than any other industry. Over the highway at some point passes all the outgoing products and incoming necessities of every farm. Highway building is receiving much attention just now in many states, as indeed it should. Highways must serve every farmer without discrimination. They must be considered systems of farm-to-market highways rather than pleasure routes or roads to political office.

In ton-miles of freight handled, the railroads stand first among types of transportation; because of the long distances of rail haul it is hard for us to realize that the freight bill paid at the railway station is proportionately much less than the highway freight bill paid at the country treasurer's office, the wagon maker's factory, or the blacksmith's shop.

Recently agricultural tonnage has increased more rapidly than railroad mileage or rolling stock. Yet there is now in operation one freight car for every 2½ farms in America, and it costs the railroads approximately $50 a year for every farm in America to supply freight cars alone.

It is in the interest of the farmer that waterways be developed. We in the middle west are for the opening of the St. Lawrence channel and the improvement of the Illinois and Mississippi rivers. Marine shipping rates are important to the farmers. We must have our own merchant marine and some means of marine regulation must be found. Recently there has been much talk of disastrous marine rates. Just now beef is carried from Argentine to the United States cheaper than from Chicago to the Atlantic seaboard. The importations of beef from Argentine have increased 500 per cent the first six months of 1923 over the corresponding period of 1922.

Since transportation is so vital to the farmer, it is essential that the whole subject of transportation be carefully analyzed. We do not want a separate highway or railway or ship policy. The interests of the farmer demand that we develop a national transportation policy in which the highway and railway and shipway are all properly articulated and co-ordinated.

Panama Canal and Other Waterways Affect the Railroads

Mr. Markham said in part: There are some people who think that all of the transportation that is needed in this country can be furnished if the transportation by rail is supplemented by some other form, and without any thought at all of opposing the use of motor trucks or the development of the waterways of the country. I think it ought to be made plain to the people of this country that, in the last analysis, transportation by rail at rates which the commerce of the country can afford to pay must form the fundamental requirement of the business of this country. In a country like ours where the distances that freight has to be hauled are necessarily so great, it is going to be absolutely essential that such treatment be accorded the railroads as will enable them to furnish the amount of transportation that you require and at rates at which you can afford to ship.

The rivers do not run in the direction of traffic in this country. There is no human possibility of developing artificial interior waterways that will add materially to the transportation facilities of the great interior of the country. In making that statement I cast no reflections on any of the ambitious programs that are now under consideration. I am not sure, for example, but that in view of the changed conditions resulting from the construction of the Panama canal and the resulting disadvantages to shippers in the interior, the interests of the whole country would be advanced by the construction of the St. Lawrence waterway. I think that something has got to be done to relieve a situation growing out of the construction of the Panama canal and the policy that has been adopted by the people of this country in the treatment of rates made by transcontinental lines. The roads cannot reduce rates to compete with the Panama canal without at the same time reducing rates to the great inter-mountain territory and perhaps losing by those reductions more than they could possibly gain because of the traffic that they would handle in competition with the canal.

Congress seems to have spoken in that matter. I do not know that there is anything that I can say or do, or that the transcontinental lines can say or do to affect that situation now, but it does seem to me that the people of the great interior sections of this country ought to have something to say about that matter.

What earthly difference can it make to a merchant in Spokane if the railroad is permitted to handle some of the business that would otherwise move by water through the canal at rates yielding something over the out-of-pocket cost? What possible difference can it make to that Spokane man if the railroad is permitted to engage in that traffic? It seems to me that the question answers itself—that every dollar that these transcontinental railroads can earn above the cost of doing the business influences to that extent their ability to render service to this great intermediate and intermountain territory. Some way must be found for improving the condition which now confronts us all in the middle west—that of being up on a ridge in the matter of competing with the more favored localities on the Atlantic seaboard.

Group Who Accompanied N. Y. C. Service-Progress Special Standing Beside N. Y. C. Famous High-Speed Locomotive of Former Days

Progressive System for Locomotive Shops

The Straight Line Method Used in Modern Industrial Plants Applied to Classified Repairs

By Lawrence Richardson
The Whiting Corporation

WHEN A LOCOMOTIVE is taken in a back shop for classified repairs the usual procedure is to place it on a certain track, where it remains until the repairs are completed. This means that all parts removed for repairs must be cleaned, usually including a trip to the lye vats, and trucked to their respective repair points. After being repaired, they are trucked back to the locomotive for assembly. Some of the larger back shops use two or three gangs on this trucking. Since all repair jobs start and end at a particular locomotive, the path traced by any particular part is a closed loop. "Back-tracks" are common. This counter-movement always means a loss in productive effort, and gives rise to confusion.

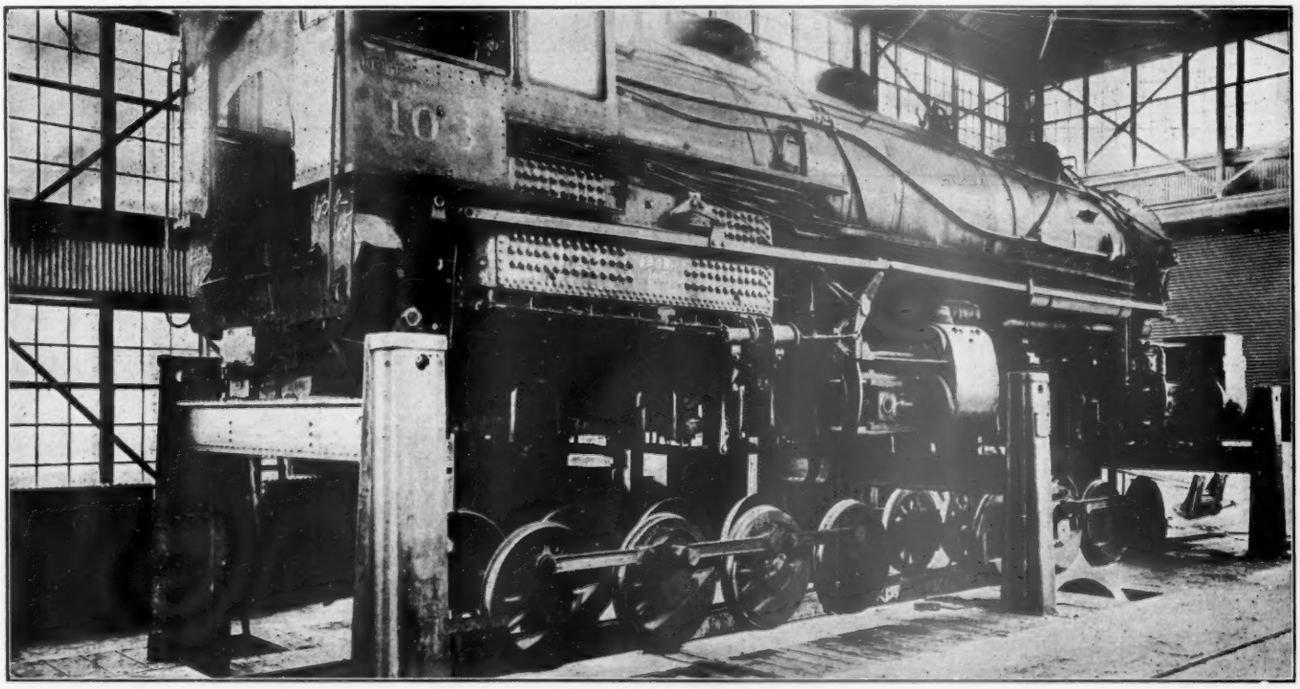
To minimize this trucking and overlapping movement a "Straight Line" system of back shop operation has been devised. With this system all movements are continuous and onward, with no conflicting or backward movements. The principal feature of this system is the division of the work into stages. The locomotive is received at one end of a shop, where it is unwheeled on a hoist. The wheels, boxes, valve motion parts, rods, etc., are removed, cleaned and started moving in "Straight Line" through the repairs to the final stage. The locomotive is then placed on trucks and moved to an intermediate track, where the repairs are continued. When the locomotive is ready for wheeling, it is moved to the far end of the shop and wheeled on a second hoist. The rods, wheels, boxes and valve parts meet it at this point. The repairs are completed here, all of the movements in the shop leading to this point without any crossing or retracing.

Straight Line Shop Layout Simplifies Movements

An application of the straight line principles to a locomotive repair shop is shown in Fig. 2. The arrows on the "IN" and "OUT" tracks and on the transfer table denote the movements of the locomotive proper, while other lines denote the movements of wheels, boxes, rods and valve gears.

The locomotive enters the shop at the point "IN" and passes through the stripping and unwheeling operations. The wheels are moved out of the shop and first pass the tire heating pits, where the necessary tire changes and renewals are made. If the locomotive is in for firebox or heavy boiler repairs, its wheels are moved to the wheel storage to prevent congestion; at the proper time, they are again placed in line so as to meet the locomotive when it is ready for wheeling. In this second stage, they move past the wheel and journal truing lathes onto the track leading to the wheeling jack. This track is so arranged that the machine bay crane can transfer the wheels to the hoist track. As there is space for 15 drivers under this crane, variations in the outbound schedule can be handled. A locomotive can be moved ahead or back without appreciably affecting the system of operation.

Meanwhile, the rods, valves, boxes and other parts are moved to the lye vats or to the sand-blast room. After cleaning, the parts move over a small industrial railway just outside the shop wall, the valves, rods and boxes being dis-



Under the "Straight Line" System Unwheeling and Stripping Are Separated from Wheeling and Assembly

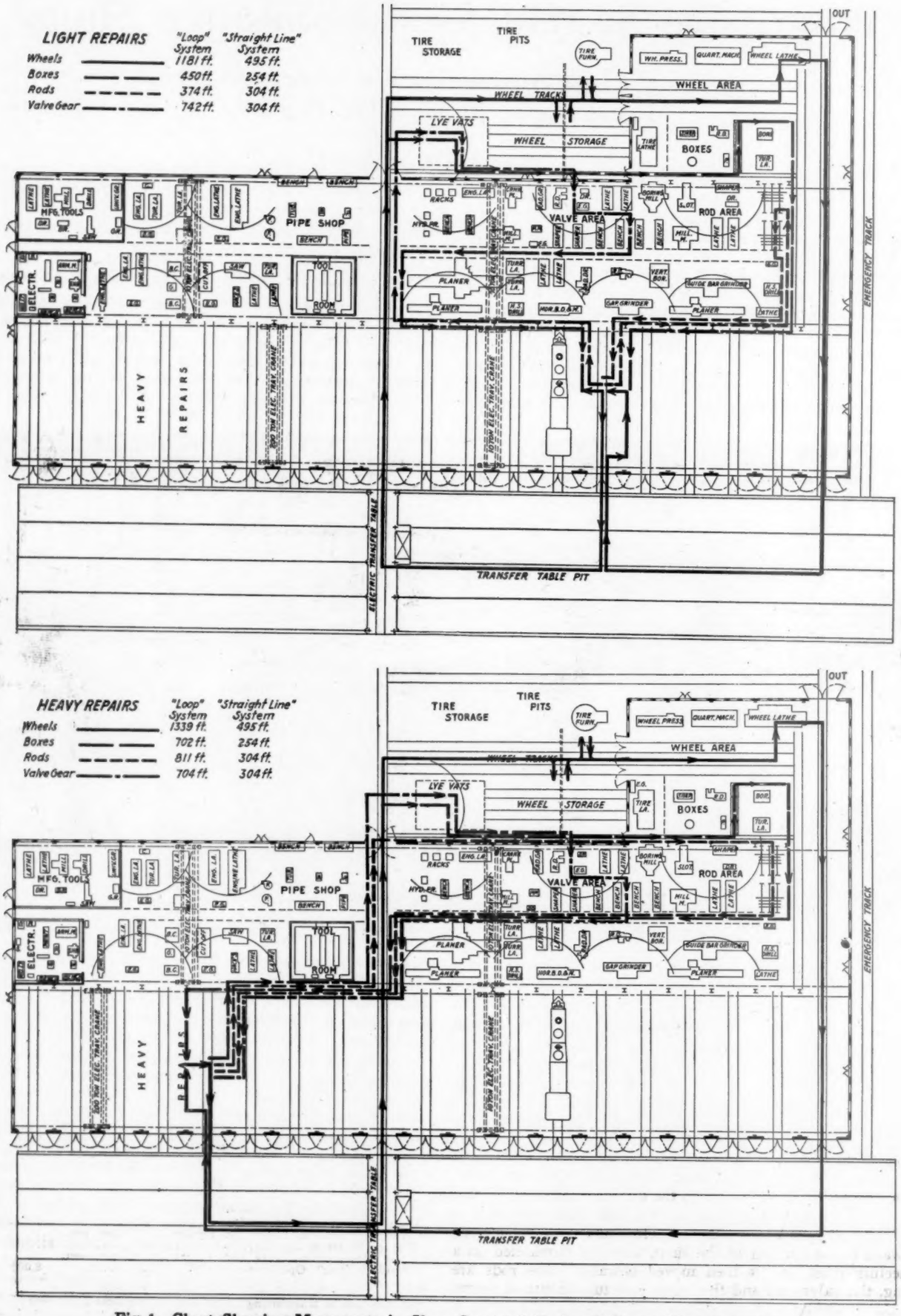


Fig 1—Chart Showing Movements in Shop Operated Under Ordinary "Loop" System

tributed as shown by the arrows. It will be noted that the "box" area lies in the angle made by the wheel movement. This permits the boxes to be swung onto the wheels as they pass.

The "rod" area is located immediately adjacent to the position occupied by the locomotive after moving off the wheeling jacks. The average movement of the rods from bench to locomotive is only 28 ft. No time or effort is wasted in moving them about the shop, as the work is always done at the same station. Gooseneck cranes are utilized in hanging rods, thus releasing the overhead crane for other service.

The "valve" area is located to give an average movement of 97 ft. from the bench to the locomotive. In the case of inside hung valve gear requiring assembly before wheeling, this space is centrally located with respect to the tracks in the main bay of the erecting shop, the average distance to the erecting shop tracks being only 195 ft.

be modified to meet existing shops and property limitations with no essential change.

Comparative Capital Investment

The principal advantages of this system are the elimination of expensive overhead heavy-duty cranes and the utilization of lower buildings of much lighter construction, thus materially decreasing the investment and reducing the direct labor charges.

The accompanying figures are based on a transverse erecting shop served by a transfer table, which is a typical layout, representative of American back-shops. The usual equipment today would be a 200-ton crane, with a 10-ton crane operating on a lower runway.

With "Straight Line" operation, the unwheeling is done by a hoist at one end of the shop and the wheeling by a second hoist at the other end of the shop. The locomotives are

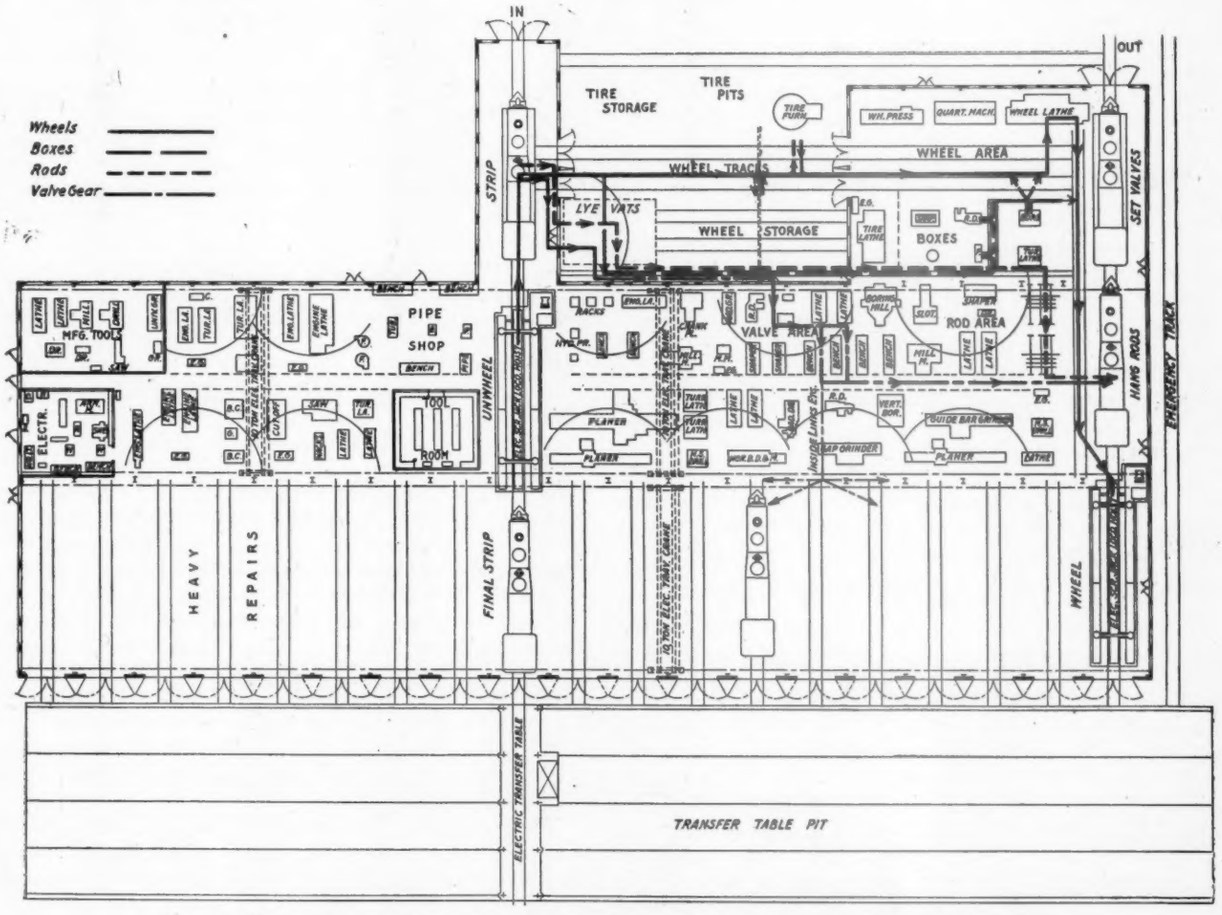


Fig. 2—Chart Showing Movement in Shop Operated Under the "Straight Line" System

The heavy repairs are concentrated in the far end of the erecting shop, the large machines usually involved in this work being placed adjacent this area.

Separate Hoists for Unwheeling and Wheeling

After the locomotive is stripped, it is moved onto the hoist and unwheeled. After stripping and unwheeling, the locomotive is moved on trucks onto the transfer table and shifted to a track in the main bay of the erecting shop.

When ready for wheeling, the locomotive is transferred onward to the far end of the shop, where it is wheeled on a wheeling hoist and is then moved onward. The rods are hung, the valves set and the locomotive turned out as shown on the diagram.

The layout shown is an adaptation of this scheme, and can handled from stage to stage on trucks. Necessary lifting in the main erecting bay is handled by a 10-ton crane.

EQUIPMENT FOR 20-TRACK SHOP

Present "Loop" Operation		"Straight Line" Operation	
Cranes, 1-200 ton	$45,000	2 200-ton hoists	$24,000
Cranes, 4-10 ton	28,000	4 10-ton cranes	28,000
Transfer table, 1-250 ton	12,000	40 trucks @ $400 each	16,000
Extra cost of crane runway @ $200 per ft.	88,000	1 250-ton transfer table	12,000
	$173,000		$80,000
Saving in favor of "Straight Line"			$93,000
Interest, depreciation, taxes and repairs @ 10 per cent, Present Operation			$17,300
Interest, depreciation, taxes and repairs @ 10 per cent, "Straight Line" Operation			8,000
Saving per year in fixed charges in favor of "Straight Line"			$9,300
Additional cost of transferring locomotives in "Straight Line" system			900
Net saving per year (exclusive of direct labor)			$8,400

In this estimate, a transfer table has been charged against the present type of back shop. The carrying charge, however, is small compared with the advantages gained. This was strikingly brought out on a recent visit to a shop not so equipped. The heavy overhead crane was out of service for some 30 days, completely tying up repair operations. Had the shop been equipped with a transfer table, it would have managed to operate with but a slight inconvenience. The loss in production exceeded $100,000.

It will be further noted that no allowance has been made in the statement for the additional maintenance and operating cost of the heavy overhead cranes. This is an appreciable item and will make the net saving even more attractive.

Straight Line Operation Used for Car Repairs

"Straight Line" operation has recently been put into effect at the Beech Grove car shops of the C. C. C. & St. L. The cars are moved from one end of the shop layout to the other by stages; stripping, fitting, riveting, brakes and safety appliances, inspection and painting following in the order named. The outstanding result was an increase in the daily output of heavy repairs from six to 15 cars per day. A similar system has been put in effect at the Readville shops on the N. Y., N. H. & H.

A division of labor makes for increased output. The Chicago & North Western, Atchison, Topeka & Santa Fe and Grand Trunk have separated the locomotive stripping operation with good results. Repetition results in the development of methods and shop kinks, materially reducing the unit times.

In the "Straight Line" shop, the stripping and assembly mechanics are separated. The assembly mechanics are divided between rods, boxes and valve gear. Constant valve setting, for example, soon enables the mechanic to do the operation faster and better by an appreciable percentage. Furthermore, these mechanics do their work at one point instead of all over the shop, which minimizes the walking so that at least 25 per cent unproductive time is utilized. This stationing gives them no excuse to wander about the shop. All their tools are placed where needed.

Minimum Hauling by Separating Operations

When locomotives are stripped throughout a shop, most of the parts must be hauled to lye vats or cleaning points. With this operation confined to one point, the lye vats are located only 25 ft. away from the hoist. The assembling is also done to a large extent at one point. Since both stripping and assembly are concentrated, lines for movement of repair parts between the two points are laid out so as to require a minimum amount of hauling and no lines embody a back haul. Fig. 1 shows the movements in the shop under the usual system of operation, where each part makes a "loop." The average length of haul for "Straight Line" operation is less than half as much as for operation under the ordinary "Loop" system.

A higher degree of skill and a different type of ability is required for assembly than for stripping. Division of the two enables the foreman to separate his best mechanics and use them in assembly work where they are most needed. Not only does he use them where they are most needed but he uses them as skilled mechanics all the time.

Straight Line Shops Are Clean and Orderly

Under the "Straight Line" scheme, all the greasy work is concentrated around the stripping pits and lye vats, the rest of the shop enjoying comparatively clean work—95 per cent of the shop is devoted to clean work. This absence of greasy parts in the main shop and assembly space results in better work, and more of it. Even roundhouse mechanics appreciate clean pits. A business man reacts favorably to good clothes and a mechanic to clean overalls.

It will be noted in the layout shown that the wheels are kept out of the main shop. It is not unusual to find a back shop with the main aisles blocked with wheels. They take up valuable space under heavy capacity cranes. It is much more economical to get them out of the main shop and under low head room and low capacity cranes. In many shops the space between pits is used for the wheels. Running the wheels around the erecting shop frees the workman of this hindrance.

Since all the parts are stripped on the "IN" track, the inspector who determines the repairs is located there. Being at one point, instead of hunting his work all through the shop, he can also supervise the men doing the stripping. This relieves the foreman so that he can be stationed near the outbound track and can direct the final stages. He is also relieved of the necessity of supervising heavy crane service, as all of this is done on the hoists.

Better Scheduling and Many Other Advantages Result from System

By moving in stages it is possible to schedule production, as is done in car-building shops and automobile factories. When a locomotive stays in one place from the time it is received until it is finished, a schedule is more or less vague. It takes a lot of the time of a good foreman to size up a shop and check up a schedule under such operation. But actual movement from stage to stage is on a standard schedule. If one stage lags, the work backs up and tends to hurry up the laggards. It is much better for the spirit of a shop to have the pace set thus rather than require the foreman to drive. Good results have always been obtained by playing gang against gang, the best results being obtained with the shortest unit time. This is effected by dividing general repairs in stages.

There are many shops that were built to handle the smaller locomotives. Many roads have been unable to benefit by larger power on account of shop limitations. Such shops can be salvaged by an adaptation of the "Straight Line" system, in that heavy cranes and excessive overhead clearances are not necessary. The older cranes of limited capacity used for lifting the lighter locomotives will be found strong enough to take care of necessary lifts of parts of the larger locomotives, the heavy lifting in wheeling and unwheeling being done by the hoists. The original cranes perform a service corresponding to that rendered by 10- and 20-ton cranes located on runways under the heavy crane runways in back shops. An expenditure of $30,000 should salvage an obsolete back shop and make it capable of handling the heaviest power.

The movement of locomotives to and from the intermediate points on trucks is the safest way. Handling heavy locomotives over the heads of workmen has always been recognized as dangerous.

In case of emergency, the operation of either the wheeling or unwheeling group may be reversed until the occasion passes. This emergency capacity has a large potential value. Review of the capital charge of statement shows the "Straight Line" system warranted on that basis alone. "Straight Line" operation is not a radical departure; it is merely the application of a well proved principle to a new field. It is a logical development.

THIRTY THOUSAND DOLLARS is the sum that was paid in damages last week by the New York Central to a young woman of Yonkers, N. Y., who, seven years ago, was injured, while bathing in Spuyten Duyvil Creek, by an electric wire of the railroad company, which fell upon her head. She sued the company recently for $50,000 and the sum paid is the result of a compromise, reached before the trial was begun.

National Transportation Institute Begins Work

Now Studying Valuation, Rates, Capitalization and Government Control—Other Work Planned

THE NATIONAL TRANSPORTATION INSTITUTE, whose main office is at 30 North La Salle street, Chicago, is gradually perfecting its organization and beginning the work for which it has been established. Its Research Council has announced that it will make reports beginning some time this winter on four major transportation subjects.

James R. Howard

Bird M. Robinson

Edgar E. Clark

These will be railroad valuation, freight rates and prices, relation of securities to value of railroad properties and government control of railroads. It is the belief of the officers of the institute that transportation legislation will be one of the most important questions before the American public, both during the coming session of Congress and in the Presidential campaign next year. Therefore, they consider that the most important public service the institute can render at this time is to lay information before the public on such subjects as those mentioned.

The president of the National Transportation Institute is James R. Howard, who was president of the American Farm Bureau Federation. It has been believed that Mr. Howard's presence as the head of the institute will be sufficient guarantee to the farmers of the United States that agriculture will not be subordinated to industry in the work of the institute. Bird M. Robinson, president of the American Short Line Railroad Association, is chairman of the Executive Committee of the institute; Edgar E. Clark, formerly chairman of the Interstate Commerce Commission, is chairman of its Research Council; Sydney Anderson, Congressman from Minnesota, and chairman of the House Committee on Agriculture, is vice-chairman of the Research Council; Doctor David Friday, formerly president of the Michigan Agricultural College, is director of the Research Council; C. B. Hutchings, formerly transportation manager of the American Farm Bureau Federation, is secretary of the institute, and Captain John W. Gerby is assistant to the president and head of the department of public relations.

Dr. David Friday

Sydney Anderson

Capt. John W. Gorby

Members of the Board of Directors, so far elected, are as follows:

James S. Alexander, president, National Bank of Commerce, New York City.

William S. Baker, Association of Wood Using Industries, Chicago.

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W. E. Skinner, secretary and general manager, National Dairy Assn., Chicago.

Andrew Stevenson, vice-president, Interstate Sand & Gravel Company, Chicago.

W. B. Storey, president, Atchison, Topeka & Santa Fe Ry., Chicago.

Ralph Van Vechten, vice-president, Continental & Commercial National Bank, Chicago.

Officers of the Research Council are Edgar E. Clark, Congressman Sydney Anderson, Doctor Friday, Herbert S. Houston, president of the Houston Publishing Company, New York; E. T. Meredith, formerly secretary of agriculture, and publisher of "Successful Farming," Des Moines, Iowa, and John F. Stevens, formerly vice-president of the Chicago, Rock Island & Pacific, and head of the Inter-Allied Technical Commission during the World War.

Doctor Friday is one of the most eminent economists in the United States, and previously to being president of the Michigan Agricultural College was head of the department of economics of the University of Michigan. The Research Council of which he is director is intended to act as a clearing house for all information on the subject of transportation. Co-operation by carriers and shippers in giving access to all facts bearing upon transportation is assured by the wide membership of the Institute, which includes all classes of business and transportation concerns and organizations.

C. B. Hutchings

The Research Council is the branch of the Transportation Institute devoted to finding facts. The other half of the work of the Institute is to be getting these facts before the public by statements to the newspapers, by magazine articles, by school and college lecture courses and by serving as a source of information for legislators and everybody desiring facts regarding transportation matters. University lecture courses on transportation given by recognized authorities on economics appointed by the Institute have been arranged to start this fall in universities and colleges in half a dozen states. This is regarded as only a beginning of its educational work. Preparation of text books on transportation and the embodiment of transportation courses in the economics department of schools and colleges throughout the country are planned. Doctor Thomas E. Finegan, for more than 20 years director of public instruction of New York state, and for the past four years head of the department of public instruction of Pennsylvania, is director of the education department of the Institute.

It is announced that periodical bulletin service making public the results of the work of the Research Council will soon begin.

President James R. Howard says: "What the country needs and must have on the subject of transportation is facts impartially gathered, not colored by any special interest, not gathered and paid for by any party or interest, whether shipper or carrier, but facts obtained by an entirely disinterested agency and laid without prejudice before the public."

A staff of investigators, statisticians and economists has been organized. They will undertake independent work in fact finding and in collating and analyzing statistics gathered by other economic bodies.

The Transportation Institute is composed of and supported by representatives of groups comprising every important productive interest in the United States. It is to have 52 directors and the railroads are limited to four directors out of the 52. It is incorporated in the State of Illinois as a non-profit making institution and its by-laws set forth that "the Institute shall not in any way become directly or indirectly the representative of either transportation agencies, producers, shippers or any special group or groups."

Electric Truck for Handling Castings

THE MANY OPERATIONS conducted in and around railroad yards, freight cars, warehouses, etc., which call for the shipping of bulky materials under conditions involving lifting or piling, and the growing desire to economize in the time and labor ordinarily required for such work have resulted in a number of recent developments adapted to this work, among which is an electric truck recently placed on the market by the Elwell-Parker Electric Company, Cleveland, Ohio.

This is a rubber-tired machine, the platform of which consists of two forks located beyond the front axle and connected with a lifting mechanism which enables a load to be raised or lowered while carried by the machine. The forks which support the load will touch the floor if desired, and may be so shaped at the outer ends as to be inserted beneath the bundle, box, bale, barrel, casting, or any irregular shaped

The New Elwell-Parker Fork Lift Truck Under Load

piece weighing up to 2,500 lb. To facilitate the movement of the machine, both the front wheels and the rear drive wheels are steerable. The raising mechanism consists of a separate motor with a worm gear reduction, while the propelling unit in the truck consists of a heavy duty motor and a controller directly connected through flexible couplings to the drive shaft. Kick-back at the steering handle when the wheels strike obstructions is avoided by locating the knuckles on both drive and front wheels close to the center of the tires.

A Senator's Views on the Railroad Question*

La Follette's Own Railroad Commission Based Valuation on Reproduction Cost—Why Rates Are Higher

By Irvine L. Lenroot
United States Senator from Wisconsin

I HAVE SELECTED for my subject the railroad question, for I know of no question upon which there is greater need of accurate information, and a correct understanding.

Freight and passenger rates are high, much higher than they were before the war. There is no line of business which is not affected by transportation rates. Every man and woman in the country is concerned in them. They bear directly upon the cost of living, upon the volume and profit of business, and upon the general prosperity. If railroad rates could be restored to those existing before the war, leaving at the same time railroads prosperous, the cost of living would be reduced, the farmer would be in a better condition and business generally would be improved.

But if we would understand the railroad question, we must first ascertain the facts in connection with it. Why are railroad rates so high? Is it because of undue and excessive returns received by the owners of the railroads? If that be true, rates should have been reduced long ago and the members of the Interstate Commerce Commission should be removed for not doing so.

But what is the fact? According to the reports of the Interstate Commerce Commission in 1920, the railroads earned eight-tenths of 1 per cent upon their valuation, as fixed by that body. In 1921 they earned three and a fraction per cent, and in 1922 four and a fraction per cent. No one will contend that this percentage is an excessive return. During all that time any investor could realize a much higher percentage in other ways with practically no hazard.

But it is said this is upon an inflated valuation, that the Interstate Commerce Commission in their valuation of $18,900,000,000 allowed $10,000,000,000 which represented no value. Here again we must ascertain what the fact is. How was this $18,900,000,000 arrived at by the commission? To answer this question, I quote from Chairman Clark of the Interstate Commerce Commission in his testimony before the interstate commerce committee of the senate in January, 1921. He said, "Stocks and bonds were not considered at all. The question of capitalization was not thought of. It is the fair value as closely as could be estimated and approximated at that time of the physical property which was devoted to the transportation service. We had a mass of information gathered in our valuation work, which is not in complete form to be given out in the form of reports and findings, and the Transportation Act specifically authorized us to avail ourselves of that information. We availed ourselves of all the information we could. The principal figures that were used in our valuation are as of 1913 and 1914. We fixed the unit price on a given railroad valuation as of June 30, 1914."

The valuation referred to by Mr. Clark is that required by the physical valuation act, sometimes called the La Follette act. This valuation was necessarily a matter of judgment to a considerable degree, but there is no basis whatever for the statement that watered stocks were used as a basis, or that the valuation used is $10,000,000,000 too high. As to the rules to be followed in determining the valuation, they have been fixed by the Supreme Court of the United States, and must be followed by the Interstate Commerce Commission, for it must follow the law as found by our highest court.

I now wish to digress very briefly to consider another phase of the question of the valuation of railroads.

Mayor Hylan Versus Supreme Court

Last spring, there was a conference held at the city of Chicago, called by Senator La Follette to consider the subject of the valuation of railroads. At that conference a rule of valuation was adopted that is plainly in violation of the law, viz: that the value should be placed at the amount of money prudently invested in the railroads. At the instance of the leaders of that conference, Mr. Hylan, the Tammany mayor of New York, was selected to stand sponsor for a well laid plan to deceive the public. On June 9, last, he sent broadcast over the country a letter from which I quote two or three paragraphs. He said: "The national conference on the valuations of American railroads, called by Senator La Follette, seeks to get the public's side of the railroad valuation case before the Interstate Commerce Commission in the courts and elsewhere."

There are two statements in this paragraph I call your attention to. First the assumption upon the part of this Chicago conference that it represents the public, and second, the use of the word "elsewhere."

As to the first, a glance at the personnel of the Chicago conference at once reveals the fact, that it was made up largely of railroad baiters, desiring to profit politically by attacking the railroads. As to the use of the word "elsewhere" it is not the Interstate Commerce Commission or the courts that they wish to get before, but it is "elsewhere" to mislead the people and make them believe the Interstate Commerce Commission is but a tool of the railroads. This will become more apparent as I proceed.

Mayor Hylan further said in that letter, "The railroads are contending for a final valuation of $23,000,000,000. Disinterested railway engineers maintain that the valuation should be based upon actual investment, and on this basis have reported that a valuation not exceeding $13,000,000,000 would be adequate. This is $10,000,000,000 less than that of the railroads' own valuation.

"It is plain that if the railroads under the Esch-Cummins act, are to be permitted to earn practically 6 per cent, as a fair return on the excessive valuation of $10,000,000,000 it means that the people will be taxed at least $600,000,000 a year on this excess."

I would first observe that the commission has not finally determined the valuation and there is no reason to believe that when it does do so, the valuation claimed by the railroads will be accepted, but the commission could not follow the rule contended for by Mayor Hylan and the Chicago conference without violating the law, and Mayor Hylan and the leaders of that conference knew that when the conference was held and are making an absolutely dishonest claim to the public. Now for the proof of this statement.

In May of this year, a few days before the Chicago conference was held, the Supreme Court of the United States handed down a decision upon this very question. The case was the State of Missouri ex rel Southwestern Bell Telephone Company against Public Service Commission of Mis-

*From an address delivered before the Traffic Club of Milwaukee, at Milwaukee, Wis., on October 16, 1923.

souri and others. The question at issue was the proper rule of valuation for public utilities.

The court reaffirmed the rule many times laid down by it, and quoted from a prior decision of the court upon the subject—as follows: "In the Minnesota rate cases 230 vs. 352 it was said, 'The making of a just return for the use of the property involves the recognition of its fair value if it be more than its cost. The property is held in private ownership and it is that property and not the original cost of it, of which the owner may not be deprived without due process of law.'"

Could language be plainer in direct contradiction of the claim of Mayor Hylan and the Chicago conference? If the commission should accept their advice its finding would be set aside by the Supreme Court, and these gentlemen know it. They do not expect the commission or the courts to follow their advice. Their purpose, and only purpose, is to mislead the people, for their own political profit.

What La Follette's Own Commission Did

I quote one more paragraph from Mayor Hylan's letter. He said, "The tentative valuation of the railroads by the commission has been placed at $18,900,000,000. This valuation has been based upon reproduction cost, upon the statistics furnished by the railroads." This, too, is an erroneous statement, as is shown by the statement of Mr. Clark, which I have read, but if the valuation had been placed upon reproduction cost, the commission would have had high authority for so doing, and could have pointed to one of the first decisions of the Wisconsin railroad commission appointed by Senator La Follette while governor of Wisconsin, for indorsement.

It consisted of John Barnes, chairman, now deceased; B. H. Myer, now a member of the Interstate Commerce Commission, and Halford Erickson, all friends and supporters of Governor La Follette. Its first important decision involved the valuation and intra state rates of the Chicago, Milwaukee & St. Paul Railway Company. It occupies 182 pages of the first volume of railroad commission reports, and in that case they adopted as the basis of valuation the cost of reproduction new, exactly what Mayor Hylan and the leaders of the Chicago conference are attacking the Interstate Commerce Commission for.

I have never heard Senator La Follette criticize his appointees for making this rule of valuation.

While I am on the subject of this decision I will refer to it for another purpose. Ever since the Esch-Cummins law was passed Congress has been attacked by these same gentlemen for directing the commission during a period of two years, to allow such rates as in its judgment would enable the roads to earn a return of 5½ per cent, and under certain specified conditions 6 per cent, upon the value of their property devoted to transportation use. This question of a fair return upon the value also came before the Wisconsin railroad commission in the case referred to. I quote from the decision:

"As the bonds draw interest at a trifle less than 5 per cent, and represent about one-half of the cost of reconstruction new, it follows that on the above methods of computing interest the owners would receive only about 5½ per cent on their investment. This is one-half of 1 per cent less than the legal rate of interest in this state. It is also less than what is considered a fair profit in other lines of business.

"For these and other reasons it would seem fair that the company should be permitted to earn at least 6 per cent on the entire cost of reproduction new. This is not an abnormal rate."

True Reasons for Present Rates

To return to the question, why are railroad rates high? It can not be said that the valuation is excessive nor the returns received in 1920, 1921 and 1922 too high. Indeed no man can say a return of eight-tenths of 1 per cent in 1920, three and a fraction in 1921 and four and four and a fraction in 1922 is a fair return. We must then look elsewhere for the reason of the high rates, and we naturally turn to cost of operation for examination.

The highest single item of cost of operation is wages of men employed upon the railroads. According to the report of the Interstate Commerce Commission in 1913 there were 1,182,000,000 tons of freight and 1,044,000,000 passengers carried, for which there was paid railway employees in wages the sum of $1,391,344,000. In 1921 there were 1,015,852,000 tons of freight and 1,060,000,000 passengers carried, for which there was paid railway employees in wages $2,765,236,000. In other words, for carrying 167,000,000 tons less freight in 1921 than in 1913, and only 16,000,000 more passengers, railway employees received in 1921, $1,383,900,000 more compensation than they did in 1913, or nearly twice as much.

Or, if we go back to 1917, instead of 1913, we find that in that year the railroads carried 1,383,000,000 tons of freight and 1,100,100,000 passengers, for which railway employees received in wages $1,783,214,000, while in 1921, as stated before, the railways carried 1,015,852,000 tons of freight and 1,060,000,000 passengers, for which there was paid railway employees, as compensation, $2,765,236,000.

In other words, for carrying 370,000,000 tons less freight, and 50,000,000 fewer passengers in 1921 than in 1917, the railway employees received in 1921, $982,000,000 more compensation than in 1917, so here is an increase in operating expenses, in the matter of wages alone, of about $1,000,000,000 a year compared with 1917, and $1,380,000,000 compared with 1913. In 1913 the railways paid for fuel, $249,000,000; in 1917, $400,000,000, and in 1921, $535,000,000, an increase of $286,000,000 over 1913 and $135,000,000 over 1917, and this increase is very largely due to increased wages paid at the mines.

I have been unable to secure the exact figures on comparative cost of material and supplies, but in 1917 it was in round numbers $700,000,000, while in 1921 it was $1,100,000,000, or an increase of $400,000,000, due very largely to increased labor cost. Taking for a comparison 1921 and 1917, the increase in cost of wages, fuel and material amounts to $1,535,000,000. The railway operating revenues in 1917 were $4,115,413,000 and in 1921 $5,516,500,000, an increase of $1,400,000,000, but $135,000,000 less than the increase in cost of wages, fuel and material.

There is another item of railway expense that must be considered and that is taxes. In 1913 the taxes paid by railways amounted to $128,024,000. In 1917 $220,586,000, and in 1921 $277,882,000, an increase of $149,000,000 over 1913, and $57,000,000 over 1917. To sum it up the net railway operating income in 1917 was $974,000,000, while in 1921 it was only $614,000,000, showing that even with the increase in rates the railways were not as well off as they were in 1917 with lower operating expenses.

I am not unmindful of the fact that 1921 was a bad year with a small volume of business, but we must also remember that in 1922 both rates and wages were reduced, the reduction in rates amounting to about 10 per cent. I have not the official figures as to reduction in wages, but with the increased volume of traffic and a greater number of employees wages paid still amount to $1,000,000,000 a year more than in 1917.

With increasing prosperity of the railroads due to increased volume of traffic we should expect reductions in rates, but there is only one way for a railroad to secure money to pay wages and other operating expenses, and that is from the public in the form of freight and passenger rates, and the man who tells railroad employees he will get them higher wages, and tells the farmer he will get rates down to where they were before the war, is the perfect type of the demagogue.

Railway Fire Protection Association at Cleveland

Annual Meeting Discusses Locomotive and Dormitory Hazards, Freight Tractors and Many Details

THE RAILROADS in this country had over 9,200 fires in 1922 causing property losses exceeding $10,000,000, according to statistics presented at the tenth annual meeting of the Railway Fire Protection Association held at Cleveland, Ohio, on May 16, 17 and 18. A total of 71 railroads with 200,264 miles of line are covered by the report. The figures—9,216 fires, loss $10,183,460—show an increase of 1,253 fires and $2,593,850 in loss over 1921 as then reported on a mileage of 207,634. A table in which properties are classified shows: Elevators, 8 fires, $1,902,342; shops and contents, 1,521 fires, $1,064,815; rolling equipment, 3,870 fires, $2,630,891; merchandise in transit, 345 fires, $797,696; piers, etc., 21 fires, $963,273; bridges; 800 fires, $417,150.

President E. A. Ryder (B. & M.), in his opening address, put a comforting construction on the committee's finding by calling attention to the fact that the increase of $2,593,848 in losses over those for 1921, includes a single loss of about $2,000,000. Discussing causes he spoke in part as follows: "Most fires are caused by human carelessness. There never was a time when people were so careless and wasteful in every way as today. We are glad indeed to note the efforts of the American manufacturers of cigarettes to impress smokers with the need of care in extinguishing their smokes before throwing them away, but everywhere the lighted cigarette is thrown away without any thought of where it may land or what damage it may do. Much of our effort is intermittent and spasmodic. Every day must be considered fire prevention day if we are to get results." Mr. Ryder proposed the holding of more sectional meetings such as were held in New York this year. The news letter he deemed indispensable to progress.

W. A. Colston Decries Pessimism

"There is no need to fear for the railroads," was the optimistic message left with the association by W. A. Colston, vice-president and general counsel of the New York, Chicago & St. Louis, in an address made at the opening of the afternoon session of Tuesday. The prevailing railway troubles, in his opinion, are almost entirely traceable to the professional spellbinder and vote getter who have found it profitable to nurse the grouches of the people. But the American people are waking up to the absurdities of these politicians. Senator Cummins now admits that the principle of compulsory consolidation is all wrong. The recent consolidations made by the Nickel Plate would never have been made if the directors had awaited the permission of the Interstate Commerce Commission to proceed. As a further evidence that the American people are awakening to the absurdities of the politicians he referred to the marked toning down in the character of the charges and attacks made by the political reformers. The best defense for the railroads is to show what the railroads are actually doing today with the limited resources available.

Cigarettes and Automobiles

The presentation of the report of fire losses for 1922 led W. F. Steffens (N. Y. C.), to refer to the large number of fires (over 1,900) and the loss ($2,328,218) attributed to unknown causes. More specific causes ought to be assigned by the railroads. The importance of doing so is particularly pressing. Full reports would disclose the cigarette as having a much greater bearing upon railway fire losses than is reported. The production of the cigarette, he pointed out, has increased 293 per cent since 1913. The cigarette is the "worst of our present hazards."

D. Rapalje (Railroad Insurance Association), while agreeing with Mr. Steffens as to the importance of ascertaining the causes of fires, cautioned against the evil of assigning definite causes when, as a matter of fact, the cause is doubtful; to encourage such a practice would destroy the value of the statistics in large measure. The smoking hazard on railways is not to be met by attempting to exterminate it but by reasonable regulation supplemented by facilities provided for cast-away matches and cigarette butts. At a subsequent meeting of the inspectors it developed that on many roads restricted areas are designated around shops where smoking is allowed. If this is not done the tendency is for employees to secrete themselves in places where the danger from fire is much more pronounced.

The inspectors' session also brought out the advisability of providing zones for automobiles rather than to allow owners to park their cars solely according to dictates of their own convenience. That the promiscuous parking of automobiles is a source of danger in many places was illustrated by J. D. Lodge (Railroad Insurance Association), who cited a case where a temporary garage had been built adjoining a frame building, constituting a very obvious fire hazard.

Discussions on the baling of waste paper, trash carts, incinerators, the maintenance of fire alarms, underground oil storage, and the attitude of inspectors were also held at the inspectors' meeting. Wm. McGrath (D. L. & W.) said that the fire-alarm apparatus on his road is tested daily and the indicator tapes sent to headquarters. Underground oil storage is not insisted on by the National Fire Association but W. F. Hickey (N. Y., N. H. & H.) and J. S. Richards (S. P.) appeared to voice the majority opinion that on railroad property underground storage of fuel oils is important.

The Locomotive Fire Hazard

The prevention of fire losses traceable to the locomotive was the subject of a carefully prepared report presented by Chairman E. N. Floyd (C. C. C. & St. L.). On 200,000 miles of line, in three years 6,299 fires were charged to sparks from locomotives, involving a loss of $3,024,461, and hot coals dropped from locomotives caused 1,236 fires with a loss of $577,022 during the same period. Most railroads use the "Master Mechanics" front end on coal burning locomotives. This spark-arresting device, when properly installed and maintained, appears to give as efficient results as any now on the market. A band washer should be placed around the contour of the smoke box over the edge of the netting and securely bolted to the angle iron. A great variance in the size of the mesh of the netting and wire used was found in the reports received; but for all railroads using ordinary grade bituminous coal a netting of 2½ mesh to the inch, No. 11 wire, appears to be most generally used, and is efficient. Where lignite or similar coal is used the netting must be finer, not larger than seven to the inch. Ash pans were discussed at length. The committee considers the dumping of ash pans while the locomotive is running a very dangerous practice and recommends such construction that the pans cannot be dumped except by a man standing on the ground. The recommendation of the committee that front ends be inspected every trip was strenuously objected to by some as being impracticable; but it was left unchanged in

view of the showing made that it was actually being done (on the Illinois Central, for instance, according to G. R. Hurd). On the Chicago, Burlington & Quincy a marked tightening upon the maintenance feature of front ends had been accompanied by a great reduction in fires attributable to sparks.

A prominent feature of the discussion of this report was an address by L. W. Wallace, executive secretary of the Federated Engineering Societies, who declared that the locomotive is regularly being charged excessively with fire losses. It was his observation, gathered from years of investigation and laboratory work, that 86 per cent of all sparks from locomotives fall within 63 ft. of the track and that 98 per cent fall within 100 ft. The heat in sparks is such that there is very little danger of fire beyond 60 ft. from the track and no danger beyond 80 ft.

Trucks and Tractors on Railroad Premises

A report on this subject presented by E. J. Reilly (Erie), recommended that only trucks and tractors approved by the Underwriters' Laboratories should be used. The design of the controlling devices of electric motors must be such that an arc cannot occur even when the tractor is stalled by excessive loads. Storage cells should be properly ventilated. The switch should be controlled by the weight of the operator so that when that weight is removed all the current is cut off. All resistance and "make and break" contacts should be so enclosed as to prevent the entrance of inflammable particles. Motors should be of the enclosed type, as where acetylene and other gases are present a single spark may cause a severe explosion.

The committee had no objection to offer to the use of gasoline trucks, approved by the Underwriters' Laboratory, for general service such as on freight platforms or even in houses, if no inflammable or explosive materials are handled; but for general service where fibrous material, etc., is present or where the gasoline tank cannot be built in the open air, the use of such trucks is not recommended. Where used, no gasoline should be poured into tanks except through approved pumps and only after the place is approved as a filling station. The draining of tanks should be done only at approved points, using standard safety self-closing cans exclusively. The exhaust from the motor should be protected by a muffler of such a design as will continue to protect the exhaust even if an explosion occurs in it. Drip pans must be used wherever a possibility is present of oil dripping from the mechanism and drip pans should be cleaned frequently. These trucks should be housed at least 25 ft. from other buildings or cars and this building should be properly ventilated. No class of trucks or tractors should be left standing without an attendant in charge. The report contained numerous other safety rules. In the discussion of this report W. F. Hickey (N. Y. N. H. & H.), told of the necessity of care in pouring gasoline from metal containers owing to the likelihood of static sparks being generated in the pouring.

Emergency Housing of Employees

In a committee report presented by P. A. Bissell (John C. Paige & Co.) this association dealt for the first time with the emergency housing question. This report embodies lessons afforded by experiences in the recent shop strike. Every railroad is likely to find itself faced with the necessity of providing on short notice facilities for lodging and feeding employees and sometimes even furnishing amusements for them. Haste in preparation, temporary character of structures, and occupancy by new and often undisciplined men demand that great care be given to fire protection.

Location. Housing facilities should not be introduced in shop or terminal buildings involving either large values or containing readily combustible materials. Careful consideration should be given to the location of boarding cars and to the mooring of floating equipment.

Construction. In congested premises efforts should be made to secure slow burning buildings. No temporary structure should exceed one story in height or 200 ft. in length. If longer the building should be subdivided into 100-ft. sections with partitions covered with metal or asbestos, with metal clad doors. Blind attics or other concealed spaces should be stopped off at frequent intervals. In kitchens and toilet rooms incombustible floors should be laid, as far as possible. Spark resistive roofing should be used.

Heating. Steam from an outside source is preferable. Coal stoves and hot water heaters should be firmly set, at least 3 ft. from any woodwork, on a metal mat or a brick base. Oil stoves should be prohibited unless set in a safety cabinet. Woodwork close to stoves or smoke pipes should be properly protected. Steam pipes near woodwork should be insulated.

Cooking. Ranges and kettles should be installed with adequate clear space all around, and be set on a fireproof floor or a ventilated masonry base.

Lighting. Electric wiring should conform to the National Electric Code. When kerosene lamps are necessary they should be of the metal font type and so fixed in position as to avoid swinging. Lamp cleaning or filling should be done in an isolated structure. Such practices as the using of paper shades or cords hung on nails or piping should not be tolerated.

Regulations. Definite arrangements for daily cleaning and the removal of rubbish should be made. Metal cans of a self-closing type should be provided in adequate number. All combustible rubbish should be burned in an incinerator located at least 50 ft. from any building or cars. Smoking should be forbidden in dormitories. If permitted in designated locations, these places should be inspected by watchmen after the men have retired for the night or left for work. No inflammable cleaning fluids should be permitted or inflammable germicides used. No oil should be used on the floors and all spare bedding and straw should be kept in a separate locked room.

Fire Protection. Buildings should be readily accessible from hydrants with a clear roadway maintained for the approach of apparatus. If extensions of pipes are found necessary to provide drinking water or toilet service, they should be large enough to also give adequate fire service, with suitable hydrants, hose houses and equipment. For outside protection where hydrants are not available use 40-gal. chemical extinguishers on wheels; or casks and pails. For inside protection, one unit of first aid appliances should be installed for each 2,500 sq. ft. of floor area, this unit consisting preferably of one approved 2½-gal. chemical extinguisher, although an acceptable equivalent would be five water pails or one cask and three pails. Housing facilities should be constantly supervised by someone held definitely responsible for conditions. Watch clock service should be provided, also fire alarm connections where conditions warrant.

Danger from Oil on Water

As a continuation of studies undertaken and reported two years ago to determine the fire hazards to piers, docks, etc., imposed by the presence of fuel oil on water, W. F. Steffens (N. Y. C.) speaking for the committee, reported that analyses of representative samples of oil found on the surface of salt water established the fact that such oil contained about 20 per cent water by absorption, the effect of which is to make it highly resistant to fire. Mr. Steffens made a series of experiments in New York harbor with a 4-ft. by 6-ft. bottomless box of galvanized iron which was supported in the water by timbers. Oil was poured ½ in. deep on the area of water enclosed by the box. After six days of ex-

posure, a white hot rod ¾ in. diam. 5 ft. long plunged into the enclosure failed to ignite the oil. A second attempt, the hot rod this time being gradually immersed, produced no different result. The flame of a Hauck torch, such as is used for melting snow at switches, was then applied to the surface at various angles but only with the result that the oil was blown away from the flame. A bundle of cotton waste saturated with gasoline was then placed in the enclosure and set on fire, but no different results were obtained until the flame of the torch was applied directly against the waste, when the oil ignited, producing a tarry substance which remained unburned. Tests were then conducted with fuel oil freshly applied. This, when mixed with gasoline, was found to ignite. From these observations and general experience, it was concluded (1) that fuel oil in contact with water can be ignited only under special conditions; (2) that fresh oil on water is flammable and (3) that water-logged timber, coated with such oil, will not burn except under extreme conditions, as by a conflagration in the vicinity.

Standardizing Hose Couplings

The railways are proceeding very slowly in putting into effect the national standard for hose couplings (2½ in. by 3-1/16 in. with 7½ threads to the inch). The standing committee on this subject, of which F. H. Elmore is chairman, regretted the limited interest being taken in standardization. Only about one-third of the roads responded to inquiries made concerning progress. Of 12,783 two and one-half inch outlets and 16,181 sections of hose, on the 35 roads reporting, only about 4 per cent are standard; 81 per cent can be standardized by the use of standardizing tools.

Concerning the progress of standardizing, the national movement is steadily attaining speed. It has been organized in 17 states and fire hose threads have been completely standardized in upwards of 700 cities and towns. The American Society of Mechanical Engineers is issuing pamphlets defining limiting dimensions for the national standard thread. The Oregon State legislature passed a bill this year making the adoption of the national standard thread on all public fire hose connections mandatory. The Union Pacific has taken up the work of standardizing all its hose connections, with 40 per cent already standardized. The New Haven is prepared to standardize wherever the municipalities will. The Illinois Central has the question of standardization under consideration with municipalities.

H. B. Glaze (O. S. L.) reported that the Oregon Short Line was 100 per cent standardized with respect to hose couplings, this standardization having been carried out even in cities, such as Salt Lake City, which are not yet standardized, provision being made at such places by supplying adapters.

Miscellaneous Business

The remainder of the meeting was devoted principally to comments by C. N. Rambo (Railroad Insurance Association), Robert Scott (A. C. L.), and F. H. Elmore (Hutchinson Revinus & Co.), on the association's work since its creation 10 years ago, with also a discussion of carbon-tetra-chloride fire extinguishers. During Fire Prevention week the New York, New Haven & Hartford had the payroll envelopes of employees marked with an appropriate slogan, and dining car menus were adapted to the occasion. On the Nickel Plate a general clean-up was made in addition to the circularizing work, while on the Boston & Maine, short talks were made to the shopmen. On the New York Central it is customary to make talks on fire prevention in many of the public schools.

The following officers were elected for the ensuing year: President, G. R. Hurd, Illinois Central, Chicago; vice-president, J. R. Peters, Pennsylvania; secretary, R. R. Hackett, Baltimore & Ohio, Baltimore, Md. The executive committee consists of: W. F. Hickey, W. S. Wollner, C. J. Parker, W. S. Topping, W. F. Barnard, C. C. Michie, and J. L. Morecock.

The following exhibitors made displays on the convention floor:

Mahr Manufacturing Company, Minneapolis, Minn.; vacuum torch, vacuum rivet forge, fuel oil valves.
George W. Diener Manufacturing Company, Chicago; fire extinguishers, waste cans, fire buckets, safety oil cans.
Volkhart Company, New York; fire hydrants.
Pyrene Manufacturing Company, Newark, N. J.; fire extinguishers.
Fyre Fyter Company, Dayton, Ohio; fire extinguishers.
Foamite-Childs Corporation, Utica, N. Y.; fire extinguishers.

Labor Board Increases Wages of Clerks and Station Workers

INCREASES IN WAGES of from 1 to 2 cents an hour for the clerical and station employees represented by the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, the Brotherhood of Railway Station Employees and the International Longshoremen's Association on some 30 roads throughout the country were granted by the Railroad Labor Board in a decision made effective October 16. The board's decision will have the effect of restoring approximately one-half the wage decrease under Decision 1,074, July 1, 1922, when decreases of from 3 to 4 cents for clerical and station forces were ordered.

The roads involved in the decision are the Atchison, Topeka & Santa Fe, the Atlantic Coast Line, the Chicago & Eastern Illinois, the Chicago & North Western, the Chicago, Indianapolis & Louisville, the Chicago, St. Paul, Minneapolis & Omaha, the Colorado & Southern, the Denver & Rio Grande Western and subsidiaries, the Duluth, South Shore & Atlantic and subsidiaries, the Erie, the Ft. Worth & Denver City, the Grand Trunk lines in the United States, the Illinois Central and subsidiaries, the Kansas City Southern and subsidiaries, the Kansas City Terminal, the Maine Central and subsidiaries, the Minneapolis, St. Paul & Sault Ste. Marie, the New York, Ontario & Western, the Pere Marquette, the St. Louis, Southwestern and subsidiaries, the Seaboard Air Line, the Southern Pacific System, the Trans-Mississippi Terminal, the Union Pacific and subsidiaries and the Western Pacific. On these roads the wage increases granted affect clerical and station employees of all classes. On a few additional roads one or more classes of employees were affected.

The wage increases granted by the board in this decision are as follows: storekeepers, assistants, chief clerks, foremen and other clerical supervisory forces, 2 cents an hour; clerks with over one year's experience, 2 cents an hour; clerks with less than one year's experience, 1 cent an hour; clerks without experience upon entering the service to be paid at the rate of $2.35 per day for the first six months and $2.75 a day for the second six months; callers, assistant station masters, train announcers, gatemen, baggage and parcel room employees, 2 cents an hour; janitors and watchmen, 1 cent an hour; freight handlers, 1 cent an hour. Sealers, scalers and fruit inspectors are to be paid rates of 1 cent an hour over truckers' rates and stowers, callers, or loaders, locaters and coopers, 2 cents an hour over truckers' rates. Common laborers in stations and warehouses were given an increase of 2 cents an hour, but telephone switchboard operators were granted no increase.

Working Rules Approved by Board

Under Decision 1,621, effective March 1, 1923, the following rules were approved by the Labor Board: Rule 57—Overtime—Except as otherwise provided in these rules, time in excess of 8 hours exclusive of the meal period on any day

will be considered overtime and paid on the actual minute basis at the rate of time and one-half. Rule 58—Notified or Called—Except as provided in Rule 59, employees notified or called to perform work not continuous with, before or after the regular work period or on Sundays and specified holidays, shall be allowed a minimum of three hours for two hours' work or less, and if held on duty in excess of two hours, time and a half will be allowed on the minute basis. Rule 64—Work performed on Sundays and the following legal holidays, New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas, shall be paid at the rate of time and one-half except that employees necessary to the continuous operation of the road, and who are regularly assigned to such service, will be assigned one regular day off duty in seven, Sunday if possible, and if required to work on such regularly assigned seventh day off duty, will be paid at the rate of time and one-half. When such assigned day off duty is not Sunday, work on Sunday will be paid for at the straight time rate.

Under the new decision, the above rules were ordered substituted for Rule 65, the Less than Full-Day-Period Rule, and Rule 67, the Day of Rest rule.

Signalmen Appeal

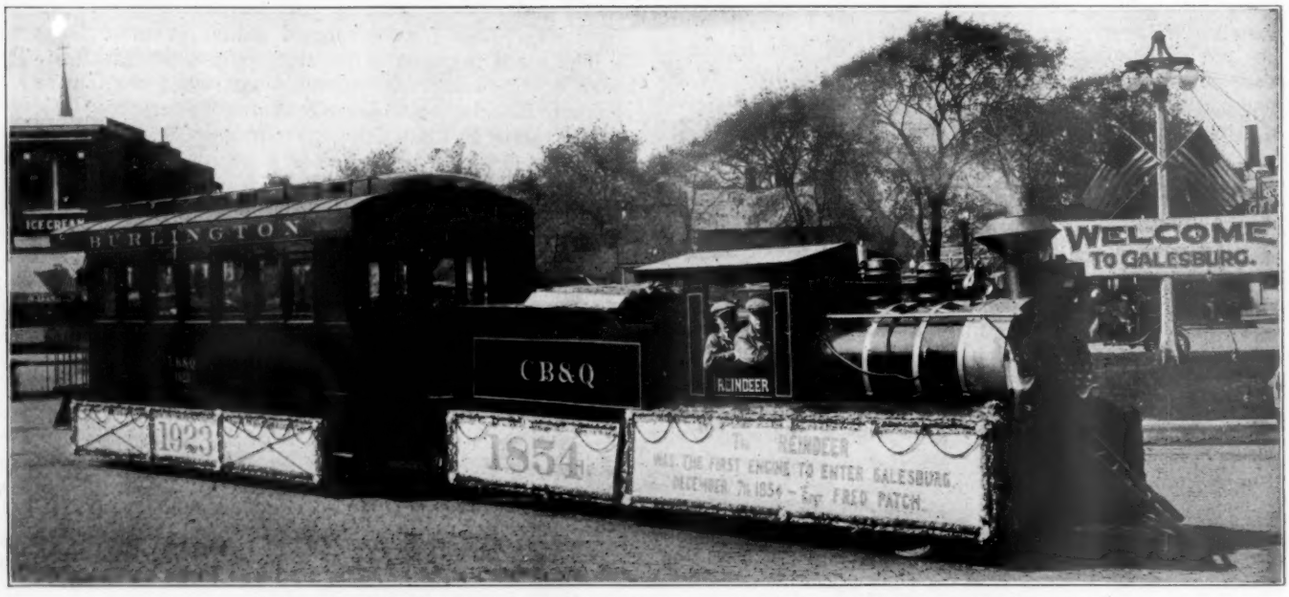
The Brotherhood of Railroad Signalmen which last week was denied increases in wages by a Labor Board decision (*Railway Age* October 20) has appealed to the Board for a withdrawal of the decision and ask that the Board remand the case to the individual roads interested in the controversy for local settlements. The officers of the signalmen's organization hope thus to open the way for negotiations which might result in the granting of small increases such as those that have already been made by a number of lines. With a decision of the Labor Board denying increases the signalmen would have little chance to carry on further negotiations with success. It is extremely doubtful, however, whether the Board will see fit to comply with the request; it would open the way for an endless succession of similar requests in regard to both past and future wage controversies.

THE STATE TAXES of the Fairchild & Northeastern, a 38-mile railroad in Wisconsin, are to be remitted to the company by the state of Wisconsin in order that operation of the line may continue.

C. B. & Q. Builds Good Will

THE CHICAGO, BURLINGTON & QUINCY took an active part in the Home Coming Week celebration at Galesburg, Ill., October 1 to 6, Saturday, October 6, being designated as Industrial and Railroad day. On Friday, October 5, a parade was held in which floats were entered representing various historical events and industrial developments. The Burlington entered a float which was a replica of the "Reindeer," the first engine to enter Galesburg, and of a modern observation car attached to it, as its contribution to the parade. The "Reindeer" entered Galesburg on December 7, 1854, Fred Patch being the engineman in charge. The illustration shows the exhibit as it appeared in the parade. In awarding the prizes, the judges, who were out of town people, awarded this float the grand prize and also the first historical prize. The parade was witnessed by at least 40,000 people.

H. E. Fuller, division superintendent of the Burlington at Galesburg, took an active part in the arrangements for the festivities of the week and has been largely instrumental in establishing friendly relations between the railroad and the people and other business interests of the city. In order to acquaint the people of Galesburg and those attending Home Coming Week with some of the features of railway operation, which the average citizen very seldom has the opportunity to observe, Mr. Fuller placed a five-car special train at the disposal of the visitors and others for a trip through the extensive shops at Galesburg. On this trip the guests were taken through the terminal, after which they visited the rail mill, the hump yards, the tie plant, the repair yards, roundhouses, machine shops and planing mills. The trip occupied about three hours and the operations of the various units were explained by J. H. Aydelott, general superintendent; H. E. Fuller, division superintendent; L. F. Parks, train master; J. P. MacDermott, assistant train master, and C. I. Twyman, division passenger agent.



Burlington Float in Parade Which Won Grand Prize and Historical Prize

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THE CANADIAN RAILWAYS began the season's snow fighting when on October 20 a two-foot fall occurred at Horne Payne in Northern Ontario along the line of the Canadian National. Several trains were slightly delayed until the line could be cleared by snow plows.

Government Operation Not Popular in Europe

Robert S. Binkerd Gives New York Railroad Club Impressions of European Tour

ROBERT S. BINKERD, vice-chairman of the committee on Public Relations of the Eastern Railroads, told the New York Railroad Club at its regular meeting on October 19 his observations on government ownership and operation of railroads in Europe. Mr. Binkerd has recently returned from a trip abroad. Other speakers were Frederick V. Green, formerly representative of the Baldwin Locomotive Works at Johannesburg, South Africa, who told of railroading in that country, and Brig. Gen. Hugh A. Drum and Colonel A. Ames, who discussed the organization and work of the railroad artillery reserve.

Mr. Binkerd found the popularity of government ownership in Europe decidedly on the wane. He said in part:

Government Ownership Increasingly Unpopular

"One of the most interesting facts in Europe today is the widespread and growing opposition to a continuation of the settled policy of many of these countries of state ownership and operation of railroads. Never before in the history of government ownership has it received the critical examination which it is today receiving in Belgium, Germany, Austria, Switzerland and Italy. In England and France the continuation of private operation is apparently assured by the attitude of the country people, the small townsmen and the middle classes of the larger cities. These elements are opposed to the nationalization of the railways, or of other fundamental industries, as necessarily involving the permanence of higher wages and operating costs than the people can afford.

Never Competes on Equal Terms With Privately Owned Lines

"For 50 years the world has been a huge laboratory in which innumerable tests have been conducted in the comparative efficiency and service of government owned and operated railroads on the one hand and of privately owned and operated railroads on the other hand. On the evidence of these 50 years' experience I am convinced that the following statements are true:

(1) "Nowhere in the entire world is there to be found any instance of a state railroad competing successfully on even terms with a privately operated railroad.

(2) "Nowhere in the entire world has railway nationalization produced what was promised. It has invariably taken a larger proportion of the national income for transportation.

(3) "It has invariably produced that transportation at a higher cost. It has invariably produced that transportation with a lower degree of efficiency.

"Government ownership has not produced contentment even among the workers who demanded it. The servants of the state abuse their master as willingly under government ownership as under any other arrangement. Nor has it abolished strikes. It has merely enlarged the power of groups of men to inflict economic injury upon their country and their fellow citizens.

The Opinion of An Ex-Socialist

"These are strong statements, but hardly stronger than that made by John Spargo, for many years the leader of the Socialist Party in the United States, and formerly a zealous advocate of government ownership and operation of industries. Writing in the Outlook Mr. Spargo says:

In view of their experiences we can hardly wonder that the nations which have most tried nationalization are least enamored of it and are steadily abandoning it. The collectivism of the war and the post-war periods has forced me to admit great disillusionment, to say the least. Wherever one turns, for example, the extensive experiments with nationalization, the substitution of governmental for private or quasi-private capitalist enterprise show no results which can be regarded as encouraging or assuring. Everywhere one sees inefficiency, waste, retrogression.

"I agree with Mr. Spargo. Let us now look at some of the evidence on which this conclusion is based. Up to the outbreak of the great war, Germany was always cited as the classic example of successful government ownership and operation of railroads. The cheapness with which railroads could be constructed, maintained and operated in Germany, the almost entire absence of grades, the superior density of traffic, and the higher percentage of freight as compared with passenger traffic ought to have enabled the German railroads to maintain an operating ratio easily 10 per cent below the operating ratio of the privately operated railroads of France. Yet, steadily year after year for many years prior to the war the privately operated railroads of France maintained operating ratios not less than 6 or 7 points under those of the German state railroads.

German Railway Rates Higher Than French Before the War

"The German railroads maintained rates which were approximately 3 per cent higher than those which obtained in France, and the German railroads did operate at a profit to the German state. But they paid no taxes, and E. A. Pratt, the well known English railroad writer, declares that it was practically impossible for the shipper to get any adequate compensation out of the state even when the loss and damage was clearly the fault of the railroad.

"In short, whatever benefit the German state derived from railroad operation was more than compensated for by the increase in the burden which railroad costs cast upon German industry. This begins to give us an insight into why the big business men in Germany are now trying to bring government operation to an end.

Unsuccessful in Switzerland, Too

"Next to Germany, Switzerland was the most frequently cited case of alleged successful government ownership and operation. The argument put forward by the Swiss ministry was that one administration would enable the railroads to be worked with fewer employees and greater economy; that as a result there would be improved service and reduced rates; and that the economies would be so great that in 60 years Switzerland would extinguish its entire railway debt. The various railroads were taken over by the government between 1901 and 1909. But not a one of these promises was realized. Instead of taking less persons to administer the railroads, their number was increased over 50 per cent. After a few years of reduction in rates to the point maintained under private operation, there was a general advance in 1909, and enormous advances since. Instead of reducing Switzerland's debt, within a few years a floating deficit of $2,500,000 was acquired. By the end of 1917, instead of having reduced the debt at all, it had increased by approximately $75,000,000, and since that time has been still further increased by the sale of Swiss bonds in the American market.

"In Austria the League of Nations has enabled us to make

an international non-partisan appraisal of the situation. As a condition precedent to the raising of an international loan to stabilize Austria's finances, the League of Nations has required Austria, within two years, to dispense with 100,000 superfluous state employees. Nine-tenths of these employees are on the Austrian state railroad.

"In Italy the Fascisti movement is, in one of its aspects, a revolt against the burden of the Italian State Railway. Even after the war ended, with declining traffic, the people of Italy saw the number of their railroad employees increased from 150,000 to 236,000, receiving wages far above those of comparable workmen in other industries. They saw the situation create annual deficits of many millions, and as a sure matter of economic and social justice they made up their minds to get rid of it as soon as they could, and to cut it down without delay. One of Mussolini's largest accomplishments is the reduction of the number of railroad employees to below 200,000.

Australia and Canada Compared

"But perhaps the most interesting and instructive lesson of all is to be found in a comparison between Australia and Canada. Australia has always had government ownership and operation of railroads. Canada, on the other hand, has been built up by the great privately owned Canadian Pacific Railway and other privately operated roads, until the unwise encouragement by the state to multiply railroads in advance of population compelled the Canadian government to take over these railroads which could not be operated at a profit.

"Australia is a country comparable in many ways with Canada. It needed immigrants and settlers. It was capable of growing enormous amounts of wheat, and of raising enormous amounts of live stock. Twenty years ago Australia was ahead of Canada in both population and production. Today Canada has entirely outstripped Australia.

"The Australian government could find a way to haul hundreds of thousands of people to see football games around the big cities at unremunerative rates; but it could find no money to extend railway facilities for the development of Australia. Millions of acres lie idle for lack of railroad transportation. For such grain as is grown, the farmer must bring the grain to the railroad, pile it, store it, and protect it at his own expense. It may be six or eight months before it is finally moved. Live stock in Australia is transported under conditions both inhumane and illegal, resulting in a substantial impairment in the weight, condition and value. In any one year out of the last twenty the Canadian Pacific Railway alone has done more to develop Canada than all the state railways of Australia from the opening days of the Twentieth century."

Freight Car Loading

WASHINGTON, D. C.

REVENUE freight car loading during the week ended October 13 amounted to 1,084,458 cars, an increase of nearly 15,000 cars as compared with the loading during the previous week, but a decrease of approximately 13,000 as compared with the record loading during the week of September 29. As compared with the corresponding week of last year, the loading shows an increase of 114,971 cars. As compared with the corresponding week of 1921, the increase was 173,929, and as compared with the corresponding week of 1920, which was the week of the largest loading until this year, there was an increase of 65,919 cars. The loading of miscellaneous freight, 397,562 cars, was particularly heavy, representing an increase of 54,053 cars as compared with last year, as was also the loading of merchandise, 250,027 cars, representing an increase of 25,232. The loading of grain and grain products continued to show decreases as compared with last year, while coal loading showed a slight decrease as compared with 1921, but all other classes of commodities show increases as compared with the corresponding weeks of both years.

The surplus for the period October 8 to 14 showed a further reduction to 27,062, while the shortage was 15,920.

REVENUE FREIGHT LOADED

SUMMARY—ALL DISTRICTS, COMPARISON OF TOTALS THIS YEAR, LAST YEAR, TWO YEARS AGO, WEEK ENDED SATURDAY, OCTOBER 13, 1923

Districts	Year	Grain and grain products	Live stock	Coal	Coke	Forest products	Ore	Mdse. L. C. L.	Miscellaneous	Total revenue freight loaded	Corresponding period 1922	Corresponding period 1921
Eastern	1923	9,637	3,842	52,909	2,966	5,696	5,602	66,921	103,868	251,441		
	1922	8,847	3,250	57,571	1,792	5,716	4,560	61,898	91,734		235,368	216,317
Allegheny	1923	2,902	3,333	55,309	5,621	3,955	10,591	50,997	85,497	218,205		
	1922	3,150	3,208	59,494	5,185	3,185	9,350	43,847	74,312		201,731	175,690
Pocahontas	1923	239	484	29,429	577	1,977	151	6,816	5,383	45,056		
	1922	224	369	18,156	275	1,498	28	5,373	3,579		29,502	36,826
Southern	1923	3,450	3,150	24,205	967	24,166	1,867	41,924	48,845	148,574		
	1922	3,360	2,518	22,309	1,069	19,843	1,257	38,638	43,830		132,824	132,745
Northwestern	1923	16,560	11,568	8,935	1,299	18,535	38,978	32,196	49,363	177,434		
	1922	18,794	9,765	10,005	1,300	15,043	28,314	28,318	37,964		149,503	134,752
Central Western	1923	12,836	17,391	18,909	297	12,254	2,868	35,600	70,763	170,918		
	1922	13,316	16,242	19,984	405	8,392	2,336	33,355	64,458		158,488	146,145
Southwestern	1923	4,670	4,107	5,267	201	8,647	522	15,573	33,843	72,830		
	1922	4,367	3,689	7,001	129	5,465	422	13,366	27,632		62,071	68,054
Total West. Dists.	1923	34,066	33,066	33,111	1,797	39,436	42,368	83,369	153,969	421,182		
	1922	36,477	29,696	36,990	1,834	28,900	31,072	75,039	130,054		370,062	348,951
Total all roads	1923	50,294	43,875	194,963	11,928	75,230	60,579	250,027	397,562	1,084,458		
	1922	52,058	39,041	194,520	10,155	59,142	46,267	224,795	343,509		969,487	
	1921	47,847	36,009	195,547	6,299	52,762	19,820	234,390	317,855			910,529
Increase compared	1922		4,834	443	1,773	16,088	14,312	25,232	54,053	114,971		
Decrease compared	1922	1,764										
Increase compared	1921	2,447	7,866		5,629	22,468	40,759	15,637	79,707	173,929		
Decrease compared	1921			584								
October 13	1923	50,294	43,875	194,963	11,928	75,230	60,579	250,027	397,562	1,084,458	969,487	910,529
October 6	1923	50,019	41,554	191,741	12,440	73,259	67,425	254,253	388,999	1,079,690	953,952	899,681
September 29	1923	50,896	41,624	200,970	12,936	75,491	69,172	253,176	393,009	1,097,274	977,791	904,831
September 22	1923	48,906	41,751	182,524	13,339	73,629	75,527	250,369	374,391	1,060,436	961,138	873,641
September 15	1923	54,462	39,785	171,830	13,704	74,760	76,661	249,262	380,116	1,060,580	937,221	852,552

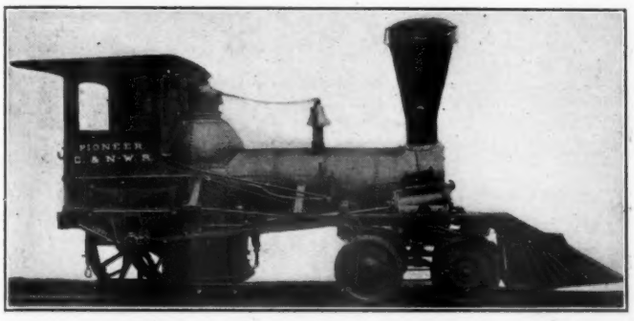
Compiled by the Car Service Division of the American Railway Association.

THE MISSOURI SUPREME COURT has reversed the order of the Circuit Court of Cole County which supported an order of the State Public Service Commission permitting the Missouri-Kansas-Texas to extend its freight yards in Kansas City along Liberty street and across Sixteenth street to Seventeenth street. Property owners protested against the order on the ground that the consent of the city and the property owners had not been obtained. The Supreme Court in its decision held that the law establishing the Public Service Commission does not confer jurisdiction over streets of cities.

North Western Celebrates Seventy-fifth Anniversary

THE SEVENTY-FIFTH ANNIVERSARY of the opening of the Chicago & North Western was marked by a celebration in Chicago on October 24 in which more than 100 veteran employees who have been in active service for 50 years or more were entertained by the officers. The veterans were brought to Chicago as their road's guests, and from 11 a. m. to 9 p. m. were kept busy with a reception, an automobile tour, a get-together meeting and a dinner.

This bringing together of the veteran employees of the North Western on the occasion of its seventy-fifth birthday was impressive in the demonstration of the great steps in development which the railroad has taken since these men were first employed over half a century ago. The historic background of the North Western is one which any other road might envy since the present system had its inception in the construction of the Galena & Chicago Union in 1835, the first railroad to lay tracks west of Chicago. In 1870,



The North Western "Pioneer," First Locomotive to Enter Chicago; It Arrived on Board the Brig "Buffalo" on October 10, 1848

when some of the veterans first entered the North Western's service, the Chicago & North Western, the same corporation which now exists, was operating only 1,100 miles of road in northern Illinois and Wisconsin. Previously, in 1864, the Galena & Chicago Union and the Chicago & North Western had been consolidated, giving the new corporation a total line of 860 miles. At that time, the road had lines from Chicago to Clinton, Iowa, Freeport, Ill., and Green Bay, Wis., with branches to Madison and Kenosha. In 1867, the line to Council Bluffs, Iowa, 491 miles west of Chicago, had been completed, this being the first railroad connection with the Union Pacific.

Through subsequent absorption of smaller roads throughout the states of Illinois, Wisconsin, Minnesota, Iowa, Nebraska and South Dakota as well as its own extensions, the present Chicago & North Western system was gradually built up. In 1872 extension of the lines from Green Bay, Wis., to Escanaba, Mich., a distance of 115 miles, was completed and in the following year, what was known as the Baraboo Air Line was completed and opened for business through to Winona, Minn.

Following the financial panic of 1873, railroad construction practically ceased and the road's earnings were seriously cut. During the fiscal year ending May 31, 1875, the gross earnings of the company decreased $1,904,000 from those of the preceding year, resulting in general cuts in the number of employees and in the wages of those retained. It was not until 1877 that the troubles resulting from the panic of 1873 were overcome and a small amount of new construction was undertaken. The first Pullman "hotel" cars west of Chicago were put into service on the C. & N. W. in 1877.

During the next decade the growth of the road was steady. In 1887, when Marvin Hughitt, now chairman of the board, was elected president, the mileage of the North Western and its subsidiary properties totaled 4,210 miles. In 1893, by purchase of the capital stock of the Milwaukee, Lake Shore & Western, the North Western system acquired a line into the Gogebic iron range. The panic of 1893 resulted in another setback for the road. A quick recovery from these losses was made, however, and in May, 1895, the expensive task of elevating the North Western's tracks in Chicago was begun.

The year 1900 was marked by the adoption of the pension system. During the next year, the 5,073 miles of the North Western system had been increased to 5,562 by the addition of a number of small lines. During the following year the lines in Minnesota and South Dakota were extended at four points a total of 258 miles. In another year the extension from Deadwood, S. D., to Lead City, had been completed and subsequent years saw further extensions in Wyoming, the present western terminus of Lander, Wyo., being reached through the acquisition of the Wyoming & North Western in 1905.

In 1905, plans were prepared for a new passenger terminal in the city of Chicago, the impressive structure through which the veterans were shown during the celebration. The subsequent years saw the construction of the remaining portion of the present system, the culmination of the North Western system from the modest beginning of the 10 miles of road of the Galena & Chicago Union to the present line of over 10,000 miles reaching into nine states. Recognition of the part in the growth of the road that the 50-year veterans played was fittingly the keynote of the seventy-fifth anniversary celebration.

Unique Drive in New Tractor

AN INTERNAL GEAR DRIVE for industrial tractors has been perfected by the Mercury Manufacturing Company, Chicago, and after three years of experimental operation, a new model—the Type H tractor—has been placed on the market in which this drive mechanism has been incorporated.

The most important advantage claimed by the manufacturer, on the basis of elaborate tests, is an increase of 25 to 35 per cent in mechanical efficiency, compared with the Type L tractor of this company, a worm drive model. These tests showed, for example that at a 200-lb. draw-bar pull, the new model was developing an efficiency, indicated by speed and current consumption, 23 per cent greater than the Type L; at a 600-lb. draw-bar pull, 28 per cent; at 800-lb. draw-bar pull, 40 per cent, etc. This increase in efficiency means an ability to run longer on one charge, to handle heavier loads during the same length of time, or to reduce the amount of the charge without reducing the reserve capacity of the batteries.

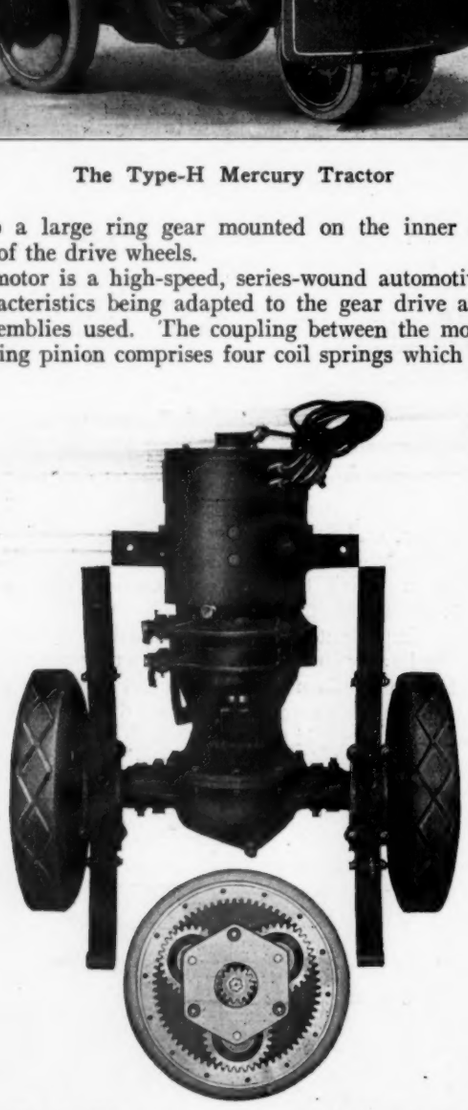
According to reports from the manufacturer five tractors of the new internal gear drive which have been in experimental service for the last two years, have demonstrated high efficiency in maintenance as well as in operation. Thus far it has been unnecessary to replace any parts of the drive mechanism. The salient features of the new drive are the balanced arrangement of the driving gears within the wheels; the method used to position these gears in relation to one another; and the provision for an oil and dust tight enclosure for every moving part. The power plant comprising the motor, motor hanger, rear axle housing, rear wheels, rear springs and all driving gears, is assembled in a single unit which may be readily detached from the frame. The sequence of operation in this drive unit is as follows: The

motor, joined to a pinion through a self-alining spring coupler, drives a bevel gear contained in the axle housing. This gear in turn drives the axle pinions to each rear wheel. The axle pinions transmit the power through three idler

The Type-H Mercury Tractor

gears to a large ring gear mounted on the inner circumference of the drive wheels.

The motor is a high-speed, series-wound automotive type, its characteristics being adapted to the gear drive and battery assemblies used. The coupling between the motor and the driving pinion comprises four coil springs which cushion



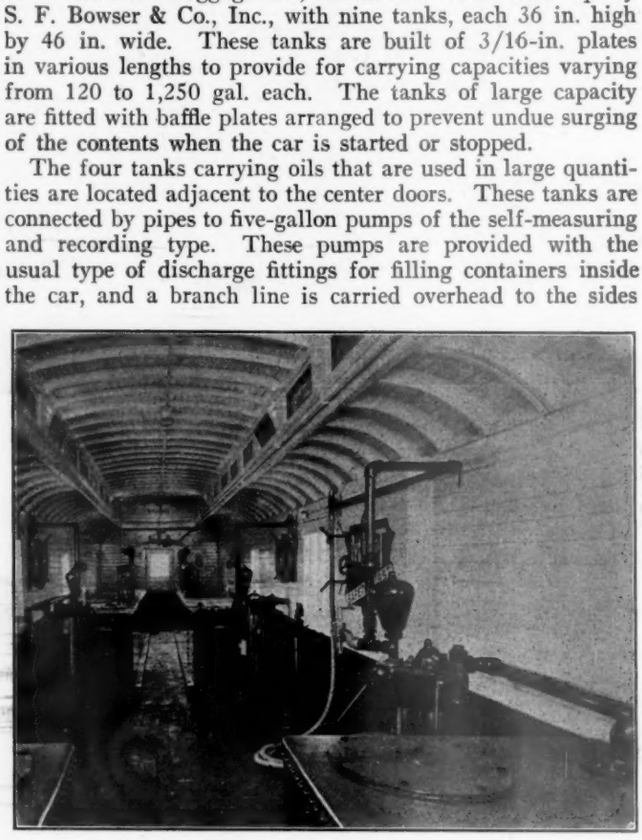
The Power Plant and a View of the Internal Gear

the initial starting torque, thereby allowing greater freedom of alinement, and eliminating much of the shock attending the operation of the machine. The frame, controller, safety features, wheel arrangement, etc., follow the lines which have been developed and used in the earlier designs of this company's equipment.

Oil Car for M-K-T Supply Train

THE INTERIOR of the oil car used by the Missouri-Kansas-Texas supply train is shown in the illustration. The supply train in effect is a complete traveling storehouse, which completely covers the system once in 60 days, carrying and delivering a complete line of supplies for local storehouses, stations, section crews, etc. The oil car is a converted baggage car, which has been fitted up by S. F. Bowser & Co., Inc., with nine tanks, each 36 in. high by 46 in. wide. These tanks are built of 3/16-in. plates in various lengths to provide for carrying capacities varying from 120 to 1,250 gal. each. The tanks of large capacity are fitted with baffle plates arranged to prevent undue surging of the contents when the car is started or stopped.

The four tanks carrying oils that are used in large quantities are located adjacent to the center doors. These tanks are connected by pipes to five-gallon pumps of the self-measuring and recording type. These pumps are provided with the usual type of discharge fittings for filling containers inside the car, and a branch line is carried overhead to the sides



Interior of Bowser Equipped Oil Car Used in Missouri-Kansas-Texas Supply Train

of the door opening where they terminate in hose extensions for use in filling local storage tanks. These large pumps are bolted directly to the floor. Deliveries from the five smaller tanks, which carry oils that are used in small quantities, are made by one-gallon pumps mounted directly on the tanks.

The tanks set in pockets in the floor of the car formed by timbers which are bolted through the floor. The tanks are thus restrained from moving out of place without being subjected to excessive strain on the structure of the tanks themselves.

An old baggage car carried on four-wheel trucks of 60,000 lb. capacity is used. In fitting it up for oil car service, the underframe has been reinforced with two 8-in. H-beam center sills placed under the wood center sills of the old underframe. These are riveted to integral bolster and end castings of steel. Between the bolsters, cast steel cross ties have also been added.

The car is equipped with electric lights, for which current is supplied by a Delco lighting plant installed in one of the other cars of the supply train. With the comparatively low tanks with which this car is equipped it is possible to fill them from barrels by the use of barrel tracks. On this car, however, they are filled from storage by means of portable air pumps. One of the advantages of the car delivery system is the ability to purchase oils in car lots rather than in barrels. It has also effected a large reduction in the amount of oils requisitioned.

General News Department

Shop crafts employees on the Atlantic Coast Line have been granted wage increases, effective October 15, which will aggregate $400,000 a year. Mechanics receive an increase of three cents an hour, apprentices, two cents an hour and helpers, one cent.

Hal S. Ray, director of personnel and public relations of the Chicago, Rock Island & Pacific, will address the Car Foremen's Association of Chicago on the evening of November 12 at the Great Northern hotel, Chicago, on "Employee Relations and Representation."

The Clerks' Association of the Central of Georgia Railway held its second annual dinner and dance at the Ansley Hotel, Atlanta, Ga., on Saturday night, October 20, with an attendance of about 500. In the forenoon, prior to the dinner, the clerks listened to short addresses by the president of the road, W. A. Winburn, and other high officers. On Sunday the clerks went on an excursion to Stone Mountain.

Derailment of a double header freight train of the New York, New Haven & Hartford at a derailing switch at Medfield Junction, Mass., on October 22, resulted in the death of one engineman and a brakeman, both locomotives falling down a bank. The train, moving north, was approaching an east and west line on which signals had been cleared for eastbound passenger train No. 7100. The accounts say that "simultaneously with the derailment, the passenger train was passing."

Piece Work on the New York Central

The long-pending negotiations between the New York Central and its shopmen, concerning compensation, which were the subject of a decision by the Railroad Labor Board last March and of supplementary orders since then, have now taken the shape of a new case which, by agreement between the road and the employees, was last week sent to the Labor Board. The purpose of this reference is to secure a decision on the fundamental question of piece-work versus hour-rates, on the merits. It is said that of the 19,000 shopmen on the New York Central Lines 10,000 now stand opposed to piece work, 4,000 are in favor of it and 5,000 are silent.

The Monthly Report on Equipment Inspection

The monthly report to the President on the condition of railroad equipment just sent in by the Interstate Commerce Commission shows that in September 5,262 locomotives were inspected by the Bureau of Locomotive Inspection, of which 47.6 per cent were found defective, and 422 were ordered out of service. The percentage found defective is less than has been shown for any month since the shop strike was begun in July, 1922. During the same month 94,517 freight cars were inspected, of which 4½ per cent were found defective and 1,917 passenger cars, of which 2.3 per cent were found defective. During the month two cases involving 72 violations of the safety appliance act were transmitted to various United States attorneys for prosecution.

C. N. R. Employees Protest Cartage by Private Concerns

Employees of the Canadian National, who work in the cartage department, have sent to the newspapers a protest against the alleged or supposed intention of the management to discontinue the cartage of freight, and let this service be done by a private concern. The protestants say that, as individuals, they have worked up a good business for the railway. Having been requested, through official circulars, to stimulate freight traffic, they have done their best in that direction; and now are dismayed to find that as a reward they are to be thrown out of their jobs. They understand that the cartage business is profitable and they claim that under railroad management, the public has received better service than where the trucking is done by outside concerns.

Railways Acknowledge Obligation to Construct Viaduct at Toronto

The presidents of the Canadian Pacific and the Canadian National in a letter to the mayor of Toronto have recognized the obligation of their companies to construct a railway viaduct along the water front at Toronto, which will do away with grade crossings and make possible the use of the new Toronto union station. The railways state, however, that conditions have changed somewhat since they entered into the agreement with the city in 1913 and, accordingly, they ask for a conference with the municipal authorities, the Harbor Commission and the Board of Trade for the purpose of agreeing on modifications.

M. of W. Men Get Two-Cent Raise in Canada

An increase of two cents an hour for all maintenance-of-way men now receiving less than 40 cents is the substance of a decision issued on October 21 by a special board of arbitration appointed by the Canadian Minister of Labor, to consider the application of the roadway employees of the Canadian Pacific, the Canadian National and the Temiskaming & Northern Ontario. It is said that about 4,200 individuals, or 60 per cent of the whole number of M. W. employees, will benefit by this decision. The special board, of which E. Quirk was chairman, was appointed after the failure of negotiations between the Railway Association of Canada and the representatives of the employees' brotherhood. The decision also includes a recommendation that the probationary period for new employees be one month instead of six months.

Pennsylvanians Oppose N. Y. C. Plans

E. P. Albrecht, president of the Philadelphia Bourse, is chairman of a committee of Philadelphia trade bodies which is taking action looking to strenuous opposition to the proposal of the New York Central to get the government to authorize the N. Y. C. to take over the Central of New Jersey for the purpose of forming a new New York Central freight line between New York harbor and Ashtabula, Ohio; and a protest will be presented before the Interstate Commerce Commission, at its hearing in Washington on November 16, when the general national consolidation plan is to be considered.

The Mayor of Reading, Pa., J. K. Stauffer, explaining the objections of that city to the plans of the New York Central, says:

"The City of Reading is unitedly opposed to any dismemberment of the Reading Railway system, no matter by what means it may be attempted or how harmless it may be pictured. * * * I am informed that the New York Central at present enjoys the full facilities of the Reading's Catawissa branch for all practical operating purposes. What advantage, other than the sole financial control, can be gained by dismembering the Reading system? The City of Reading is the heart of the railroad which bears its name and 6,200 of its citizens are railway employees, who are vitally interested in maintaining its prominence as the fourth railroad in the United States in the amount of tonnage handled.* * * We want a continuance of 'home-rule' management which has brought about great success in its service to the public. The 110,000 people of Reading are unwilling to have such a great railway property cut into fragments, to be apportioned elsewhere under any form of grab whatever."

Mr. Stauffer has called a conference of all the mayors of eastern Pennsylvania to take joint action against any disturbance of the present status of the Reading Railway System.

Operating Statistics of Large Steam Roads—Selected Items for the Month of August, 1923,

Region, road and year	Average miles of road operated	Train-miles	Locomotive-miles: Principal and helper	Locomotive-miles: Light	Car-miles: Loaded (thousands)	Car-miles: Per cent loaded	Ton-miles (thousands): Gross, Excluding locomotive and tender	Ton-miles (thousands): Net, Revenue and non-revenue	Average number of locomotives on line daily: Serviceable	Unserviceable	Per cent unserviceable	Stored
New England Region:												
Boston & Albany.....1923	394	280,675	298,217	30,074	5,575	67.9	296,315	124,072	117	30	20.1	...
1922	394	252,014	265,245	24,786	4,928	73.3	229,689	87,565	110	32	22.6	...
Boston & Maine.....1923	2,455	626,054	690,973	62,073	13,176	71.0	686,137	293,681	332	135	28.9	2
1922	2,455	514,072	574,956	40,658	12,095	77.7	548,396	222,885	319	127	28.4	32
N. Y., New H. & Hartf...1923	1,974	546,747	580,157	38,356	12,647	68.2	672,908	281,663	302	80	20.9	2
1922	1,976	430,654	468,405	28,604	11,550	75.3	528,533	217,013	248	98	28.4	4
Great Lakes Region:												
Delaware & Hudson.....1923	886	420,129	585,901	52,539	11,390	65.6	754,536	395,282	233	64	21.4	15
1922	887	234,728	312,812	31,878	6,825	77.9	361,256	175,266	251	51	17.0	172
Del., Lack. & Western....1923	993	541,864	661,445	102,171	16,683	69.1	925,864	423,541	279	67	19.3	4
1922	994	428,168	510,235	100,473	14,105	73.3	701,914	302,205	271	92	25.3	24
Erie (Inc. Chic. & Erie)..1923	2,309	1,050,727	1,179,800	85,364	37,052	69.5	2,248,503	1,080,363	695	127	15.4	122
1922	2,309	777,452	844,068	74,107	27,099	72.0	1,469,102	648,421	476	278	36.9	45
Lehigh Valley 1923	1,317	597,908	660,064	76,871	17,581	71.3	1,031,732	521,802	399	155	28.0	43
1922	1,316	489,956	545,908	80,931	14,723	74.6	777,746	367,949	402	164	28.9	102
Michigan Central 1923	1,827	538,038	541,266	18,662	18,338	68.4	965,042	298,578	329	64	16.3	58
1922	1,827	517,260	524,737	24,227	18,444	72.5	905,994	376,719	306	94	23.6	73
New York Central.....1923	6,469	2,246,452	2,563,108	187,252	82,360	64.7	4,968,113	2,304,604	1,368	375	21.5	357
1922	6,468	1,706,673	1,902,260	149,668	64,588	71.5	3,443,682	1,529,389	903	808	47.2	141
New York, Chic. & St. L..1923	1,670	710,121	719,866	4,659	20,162	69.2	1,077,023	457,560	208	78	27.2	7
1922	1,670	642,244	648,687	4,289	18,441	76.2	913,584	395,822	211	79	27.3	23
Pere Marquette 1923	2,197	414,116	428,576	7,703	10,213	69.6	580,831	291,084	182	34	15.7	13
1922	2,182	327,065	334,116	5,637	8,585	73.4	440,611	203,542	144	65	31.1	1
Pitts. & Lake Erie.....1923	231	175,412	182,676	1,656	6,509	65.5	483,108	291,587	74	17	18.8	5
1922	228	101,310	106,222	1,046	3,639	73.9	232,084	139,561	57	24	29.6	10
Wabash 1923	2,418	672,650	707,918	16,042	20,051	72.2	1,058,306	450,639	262	67	20.3	...
1922	2,418	463,090	483,844	5,680	14,613	80.5	697,116	316,499	262	83	24.0	14
Ohio-Ind.-Allegheny Region:												
Baltimore & Ohio.....1923	5,212	2,227,372	2,566,434	170,338	60,205	64.9	3,860,480	1,976,098	1,102	189	14.6	81
1922	5,235	1,177,378	1,348,092	90,190	31,367	70.5	1,814,318	910,367	648	730	53.0	10
Central of New Jersey....1923	695	300,756	327,369	39,983	7,420	63.5	466,299	229,179	224	49	17.9	10
1922	692	255,424	278,906	33,946	5,490	71.1	290,934	132,667	204	56	21.4	30
Chicago & Eastern Ill.....1923	945	239,285	240,050	4,564	6,293	68.2	360,176	179,688	133	55	29.1	43
1922	945	197,323	199,655	2,646	4,952	73.9	256,559	125,525	92	76	45.1	23
Cleve., Cin., Chic. & St. L..1923	2,377	731,482	762,902	9,162	23,171	65.1	1,456,840	724,204	342	107	23.7	46
1922	2,378	549,221	571,096	13,239	18,783	73.0	1,039,042	508,022	234	217	48.1	1
Elgin, Joliet & Eastern....1923	460	136,960	149,263	6,791	4,041	65.2	310,191	169,701	81	19	19.0	1
1922	459	39,096	41,382	1,739	1,172	67.4	86,973	47,894	87	20	18.9	21
Long Island 1923	393	50,724	62,641	10,430	709	60.1	32,642	17,211	39	15	27.8	...
1922	394	43,128	45,257	7,125	517	60.0	29,614	10,816	35	13	26.9	...
Pennsylvania System 1923	10,907	5,248,493	5,733,081	437,559	141,754	64.2	9,644,356	4,886,884	2,851	607	17.5	53
1922	10,903	4,467,630	4,822,558	359,104	126,883	71.0	7,590,867	3,775,994	2,500	880	26.0	328
Philadelphia & Reading....1923	1,118	720,558	802,190	84,162	18,433	65.0	1,241,886	671,536	344	110	24.2	41
1922	1,119	458,335	498,566	51,954	11,427	69.4	681,402	347,554	416	72	14.8	239
Pocahontas Region:												
Chesapeake & Ohio.....1923	2,553	1,015,001	1,094,730	28,433	30,789	59.0	2,395,519	1,331,293	460	93	16.7	2o
1922	2,551	533,380	585,045	13,582	15,551	61.7	1,157,772	635,651	336	210	38.5	35
Norfolk & Western.....1923	2,228	905,522	1,117,195	36,660	26,436	60.6	2,111,806	1,160,830	543	137	20.1	51
1922	2,228	824,720	980,237	38,397	21,544	57.7	1,778,131	972,189	552	173	23.9	96
Southern Region:												
Atlantic Coast Line.....1923	4,861	628,099	631,369	9,660	14,891	66.6	791,567	337,438	361	58	13.8	53
1922	4,923	570,097	572,105	11,093	13,261	74.0	646,118	281,292	333	99	23.0	19
Central of Georgia.....1923	1,907	304,086	308,338	6,246	6,157	71.5	328,896	152,195	131	16	10.7	...
1922	1,907	233,976	235,799	3,463	4,873	77.9	242,123	114,637	120	13	9.5	...
I. C. (inc. Y. & M. V.)...1923	6,190	1,916,931	1,927,898	37,499	52,778	64.0	3,292,555	1,497,478	718	120	14.4	...
1922	6,135	2,038,510	2,087,787	51,540	58,110	69.8	3,453,492	1,649,617	746	95	11.3	5
Louisville & Nashville.....1923	5,032	1,747,304	1,858,622	68,837	32,253	63.2	2,111,782	1,049,540	598	101	14.4	...
1922	5,021	1,303,678	1,382,955	47,805	21,919	66.5	1,352,730	667,940	598	93	13.5	...
Seaboard Air Line.....1923	3,553	437,689	446,020	10,408	9,794	70.8	513,975	225,475	207	40	16.1	8
1922	3,537	415,459	421,834	11,845	9,258	74.5	461,049	202,144	145	123	46.0	...
Southern Ry. 1923	6,942	1,471,402	1,518,118	35,935	33,239	70.6	1,761,739	790,350	794	134	14.5	...
1922	6,942	1,016,017	1,039,377	35,459	21,709	77.1	1,059,658	474,999	790	253	24.3	9
Northwestern Region:												
Chic. & N. Wn.....1923	8,463	1,717,244	1,810,034	21,899	40,429	64.4	2,362,394	1,019,872	874	182	17.3	40
1922	8,427	1,229,367	1,278,396	27,428	28,094	71.4	1,477,562	666,059	697	344	33.0	8
Chic., Milw. & St. Paul...1923	11,007	1,775,708	1,826,149	70,766	46,076	66.5	2,559,127	1,145,590	874	172	16.4	43
1922	11,027	1,637,844	1,686,244	81,451	42,506	72.4	2,216,316	1,031,007	777	286	26.9	83
Chic., St. P., M. & O.....1923	1,726	351,359	380,718	16,196	7,031	68.5	383,113	162,731	163	42	20.6	14
1922	1,726	378,126	411,167	19,979	7,107	72.9	378,065	167,228	153	67	30.4	11
Great Northern 1923	8,255	1,079,511	1,118,078	48,934	30,339	55.1	2,064,451	959,233	593	134	18.4	87
1922	8,255	886,916	910,090	38,569	27,099	65.8	1,636,290	838,499	551	174	24.0	67
M., St. P. & S. Ste. M....1923	4,374	576,741	584,859	9,185	13,851	70.1	723,623	350,569	289	54	15.9	1
1922	4,355	581,660	587,927	10,749	14,377	76.4	673,271	324,699	298	53	15.1	8
Northern Pacific 1923	6,425	945,077	994,844	64,702	27,269	65.5	1,589,178	682,026	562	131	18.9	34
1922	6,388	924,202	961,351	45,775	26,749	75.2	1,419,987	680,113	558	135	18.7	81
Oreg.-Wash. R. R. & Nav. Co.1923	2,143	238,935	255,171	26,097	6,066	67.5	342,553	155,171	153	21	12.1	11
1922	2,143	233,077	259,431	39,596	5,706	72.5	324,295	154,931	135	35	20.6	1
Central Western Region:												
Atch., Top. & S. Fe.....1923	9,905	1,772,450	1,878,278	99,026	51,035	64.0	2,943,707	1,061,754	762	175	18.6	72
1922	9,798	1,759,947	1,839,915	80,537	49,874	68.7	2,777,446	1,117,540	754	196	20.6	85
Chicago & Alton.....1923	1,010	362,550	368,406	6,053	9,060	65.5	529,786	236,170	118	37	23.6	8
1922	1,010	194,235	196,162	3,661	4,532	76.5	231,703	114,932	78	67	46.3	6
Chic., Burl. & Quincy.....1923	9,338	1,700,460	1,767,138	85,602	46,613	64.4	2,755,892	1,273,462	771	198	20.4	39
1922	9,326	1,535,754	1,598,349	90,257	41,919	70.8	2,303,186	1,091,464	751	228	23.3	63
Chic., Rock I. & Pacific...1923	7,635	1,405,335	1,441,440	22,447	30,778	65.5	1,732,827	742,125	511	250	32.9	10
1922	7,662	1,243,460	1,257,492	18,781	29,875	76.4	1,516,895	705,177	536	207	27.8	34
Denver & R. G. Wn.....1923	2,593	279,355	348,082	66,291	5,951	67.2	360,840	169,001	239	90	27.2	10
1922	2,593	265,477	320,959	64,939	5,731	67.4	351,545	171,753	225	99	30.6	9
Oregon Short Line.....1923	2,367	420,005	438,140	25,978	9,323	60.4	581,487	234,523	170	51	23.0	9
1922	2,360	399,524	416,729	32,337	8,375	61.4	515,043	219,525	189	48	20.2	40
Southern Pacific 1923	6,939	1,539,344	1,716,483	305,481	41,386	63.2	2,491,404	968,814	661	124	15.8	2
1922	6,924	1,254,807	1,422,234	248,732	35,498	69.1	1,974,395	795,498	613	186	23.3	8
Union Pacific 1923	3,709	1,290,795	1,324,085	105,319	40,410	68.7	2,222,578	838,827	449	77	14.7	77
1922	3,707	1,053,833	1,075,676	89,422	33,111	70.5	1,760,934	680,767	425	121	22.1	99
Southwestern Region:												
Gulf, Colo. & S. F.....1923	1,897	265,382	274,305	6,311	6,949	67.0	401,644	179,967	117	27	18.7	12
1922	1,895	260,458	266,453	6,611	6,745	66.7	398,993	190,416	120	32	21.1	15
Missouri-Kansas-Texas 1923	1,801	305,537	306,329	7,993	9,220	61.3	514,840	196,526	145	86	37.1	55
1922	1,987	267,166	267,738	6,775	7,401	67.2	368,239	166,131	115	88	43.2	37
Mo.-Kan.-Tex. of Texas....1923	1,389	179,429	184,690	2,996	4,033	65.4	225,272	90,866	69	52	43.3	5
1922	1,738	181,139	186,818	4,179	3,364	71.5	182,201	79,788	69	72	50.9	8
Missouri Pacific 1923	7,112	1,219,022	1,231,454	46,874	30,778	68.3	1,733,601	781,912	432	196	31.2	..
1922	7,193	989,566	999,087	38,713	24,746	74.7	1,324,499	623,719	377	215	36.4	1
St. Louis-San Francisco....1923	4,683	921,718	935,017	18,331	18,119	66.7	1,022,738	445,955	370	131	26.1	16
1922	4,683	734,930	741,666	17,239	12,583	68.3	710,135	322,545	314	127	28.7	1
Southern Pacific Lines (in Texas and Louisiana)[1].. 1923	3,710	625,894	627,596	3,255	13,737	67.8	798,498	351,679	224	71	23.9	28
1922	3,710	597,558	605,834	7,413	12,588	67.9	731,479	333,393	187	104	35.8	10
Texas & Pacific.....1923	1,953	264,001	264,111	6,044	6,303	69.2	342,046	142,708	152	45	22.7	40
1922	1,953	225,368	225,442	5,315	6,063	72.3	318,620	135,672	97	112	53.7	16

[1]Includes Galveston, Harrisburg & San Antonio, Houston & Shreveport, Houston & Texas Central, Houston East & West Texas, Iberia & Vermillion, Lake Charles & Northern, Louisiana Western, Morgan's La. & Tex. R. R. & S. S. Co., and Texas & New Orleans.

Compared with August, 1922, for Roads with Annual Operating Revenues above $25,000,000.

Region, road and year	Average number of freight cars on line daily: Home	Foreign	Total	Per cent unserviceable	Stored	Gross tons per train, excluding locomotive and tender	Net tons per train	Net tons per loaded car	Net ton-miles per car-day	Car-miles per car-day	Net ton-miles per mile of road per day	Pounds of coal per 1,000 gross ton-miles including locomotive and tender	Passenger service: Train-miles	Passenger-train car-miles
New England Region:														
Boston & Albany.....1923	2,043	6,332	8,375	3.7	....	1,056	442	22.3	478	31.6	10,160	183	315,667	2,095,540
1922	2,605	5,133	7,738	6.4	....	911	347	17.8	365	28.0	7,171	207	312,761	1,975,708
Boston & Maine.....1923	13,557	17,413	30,970	11.6	....	1,095	469	22.3	306	19.3	3,859	159	941,525	5,418,499
1922	15,203	14,769	29,972	18.8	947	1,067	434	18.4	240	16.8	2,929	161	919,028	5,272,148
N. Y., New H. & Hartf.1923	20,352	18,834	39,186	19.9	....	1,231	533	23.1	240	15.3	4,766	151	1,101,179	7,136,840
1922	22,549	19,048	41,597	23.3	303	1,227	504	18.8	168	11.9	3,543	167	1,087,778	6,961,591
Great Lakes Region:														
Delaware & Hudson.....1023	8,962	8,782	17,744	7.6	....	1,796	941	34.7	719	31.5	14,386	187	233,297	1,411,131
1922	12,297	5,807	18,104	7.7	5,907	1,539	747	25.7	312	15.6	6,374	200	225,215	1,325,866
Del., Lack. & Western..1923	13,763	10,728	24,491	4.6	....	1,709	782	25.4	558	31.8	13,761	175	512,467	3,814,661
1922	15,780	9,555	25,335	13.4	781	1,639	706	21.4	385	24.5	9,807	186	510,094	3,722,648
Erie (inc. Chic. & Erie).1923	25,574	26,317	51,891	9.6	....	2,140	1,028	29.2	672	33.1	15,091	124	706,188	5,814,588
1922	31,891	22,928	54,819	17.6	1,853	1,890	834	23.9	382	22.1	9,057	146	663,179	5,070,947
Lehigh Valley.....1923	19,919	12,418	32,337	5.5	129	1,726	873	29.7	521	24.6	12,782	161	357,920	2,912,988
1922	30,012	13,800	43,812	11.5	3,778	1,587	751	25.0	271	14.5	9,017	188	358,147	2,865,983
Michigan Central 1923	10,173	20,519	30,682	7.2	....	1,794	741	21.7	419	28.2	7,039	121	648,331	5,804,165
1922	12,435	16,512	28,947	14.6	....	1,752	728	20.4	420	28.3	6,653	108	603,770	5,480,017
New York Central.....1923	57,741	89,499	147,240	6.8	3,407	2,212	1,026	28.0	505	27.9	11,493	115	2,755,726	23,076,311
1922	77,985	62,222	140,207	15.1	12,435	2,018	896	23.7	352	20.8	7,628	128	2,612,710	21,153,374
N. Y., Chic. & St. L....1923	5,168	14,111	19,279	10.6	....	1,517	644	22.7	766	48.8	8,841	124	225,244	1,216,620
1922	5,160	11,442	16,602	15.3	....	1,422	616	21.5	769	47.0	7,648	122	221,622	1,164,836
Pere Marquette.....1923	7,078	17,812	24,890	5.1	....	1,403	703	28.5	377	19.0	4,273	126	325,215	1,837,395
1922	8,731	12,575	21,306	13.4	....	1,347	622	23.7	308	17.7	3,010	122	222,090	1,370,627
Pitts. & Lake Erie.....1923	8,610	12,700	21,310	15.0	....	2,754	1,662	44.8	441	15.0	40,682	71	124,803	703,548
1922	16,611	10,028	26,639	34.7	3,651	2,291	1,378	38.4	169	6.0	19,752	90	116,019	622,412
Wabash 1923	10,167	13,332	23,499	3.3	....	1,573	670	22.5	619	38.1	6,012	136	512,971	3,111,115
1922	9,921	12,582	22,503	11.1	253	1,505	683	21.7	454	26.0	4,223	135	373,762	2,411,762
Ohio-Ind.-Allegheny Region:														
Baltimore & Ohio.....1923	57,778	45,946	103,724	4.3	....	1,733	887	32.8	615	28.9	12,230	170	1,559,491	10,137,308
1922	62,668	41,862	104,530	14.2	2,980	1,541	773	29.0	281	13.7	5,610	220	1,313,255	8,206,089
Central of New Jersey...1923	12,988	13,519	26,507	12.0	....	1,550	762	30.9	279	14.2	10.643	180	424,535	2,186,128
1922	18,657	9,361	28,018	5.9	10,701	1,139	519	24.2	153	8.9	6,187	224	417,138	2,053,590
Chicago & Eastern Ill...1923	12,675	5,096	17,771	17.1	....	1,505	751	28.6	326	16.7	6,133	169	233,561	1,492,210
1922	13,375	4,593	17,968	18.2	474	1,300	636	25.3	225	12.0	4,284	160	186,175	1,351,673
Clev., Cin., Chic. & St. L.1923	12,488	23,996	36,484	7.4	....	1,992	990	31.3	640	31.5	9,830	118	721,315	4,583,759
1922	15,700	21,990	37,690	15.3	4,277	1,892	925	27.0	435	22.0	6,892	122	707,658	4,287,232
Elgin, Joliet & Eastern..1923	8,593	8,040	16,633	10.5	....	2,265	1,239	42.0	329	12.0	11,907	117	.....	.....
1922	8,973	5,648	14,621	16.0	....	2,225	1,225	40.9	106	2.8	3,365	103	.....	.....
Long Island.....1923	1,610	5,567	7,177	1.5	....	644	339	24.3	77	5.3	1,412	373	236,680	1,469,079
1922	2,061	3,008	5,069	5.4	....	687	251	20.9	69	5.5	885	330	230,028	1,435,123
Pennsylvania System.....1923	169,230	111,590	280,820	4.5	1,832	1,838	931	34.5	561	25.4	14,453	138	5,485,843	37,515,745
1922	180,498	101,237	281,735	13.9	12,622	1,699	845	29.8	432	20.5	11,172	145	5,316,096	35,792,262
Philadelphia & Reading..1923	16,986	20,516	37,502	4.8	....	1,724	932	36.4	578	24.4	19,380	168	525,029	2,495,676
1922	20,519	11,625	32,144	5.3	5,555	1,487	758	30.4	349	16.5	10,017	185	515,606	2,336,300
Pocahontas Region:														
Chesapeake & Ohio.....1923	27,444	14,494	41,938	7.6	....	2,360	1,312	43.2	1,024	40.1	16,822	113	485,125	2,910,359
1922	32,747	17,940	50,687	16.5	476	2,171	1,992	40.9	405	16.0	8,039	129	451,090	2,492,213
Norfolk & Western.....1923	27,499	12,593	40,092	5.3	....	2,332	1,282	43.9	934	35.1	16,805	172	421,110	2,732,808
1922	28,042	14,253	42,295	6.5	....	2,156	1,179	45.1	741	28.5	14,077	175	398,299	2,480,484
Southern Region:														
Atlantic Coast Line.....1923	16,120	9,460	25,580	7.2	....	1,260	537	22.7	426	28.2	2,239	124	707,021	4,445,300
1922	13,497	9,369	22,866	19.0	....	1,133	493	21.2	397	25.3	1,843	123	700,892	4,098,694
Central of Georgia.....1923	2,977	5,012	7,989	5.2	....	1,082	501	24.7	615	34.8	2,575	168	332,750	1,682,917
1922	2,408	4,414	6,822	16.1	....	1,035	490	23.5	542	29.6	1,939	164	328,703	1,590,014
I. C. (inc. Y. & M. V.).1923	34,605	32,285	66,890	6.5	2,406	1,718	781	28.4	722	39.8	7,804	132	1,519,785	8,824,480
1922	31,145	35,778	66,923	9.5	2,573	1,694	809	28.4	795	40.1	8,674	131	1,468,676	8,430,145
Louisville & Nashville....1923	34,240	20,283	54,523	14.6	65	1,209	601	32.5	621	30.2	6,728	166	1,048,298	6,264,110
1922	27,572	21,409	48,981	12.5	66	1,038	512	30.5	440	21.7	4,291	191	1,006,403	5,812,961
Seaboard Air Line.....1923	8,540	8,051	16,591	18.4	....	1,174	515	23.0	438	26.9	2,047	154	553,768	3,229,450
1922	11,194	12,585	23,779	35.0	....	1,110	487	21.8	274	16.9	1,843	170	433,746	2,632,541
Southern Ry.....1923	31,058	28,148	59,206	4.8	....	1,197	537	23.8	431	25.6	3,673	183	1,338,192	8,260,844
1922	31,263	38,831	70,094	15.3	....	1,043	468	21.9	219	13.0	2,207	213	1,302,972	7,331,823
Northwestern Region:														
Chic. & N. Wn.....1923	43,491	34,563	78,054	8.0	....	1,376	594	25.2	421	25.9	3,888	146	1,663,108	10,900,280
1922	40,811	32,890	73,701	9.3	....	1,202	542	23.7	292	17.2	2,550	160	1,405,293	9,530,596
Chic., Mil. & St. Paul...1923	51,357	33,790	85,147	8.5	....	1,441	645	24.9	434	26.3	3,357	143	1,543,146	9,851,810
1922	45,889	26,725	72,614	18.7	....	1,353	629	24.3	458	26.1	3,016	136	1,485,783	9,329,283
Chic., St. P., M. & O...1923	3,428	9,861	13,289	11.4	989	1,090	463	23.1	395	24.9	3,041	145	311,831	1,874,773
1922	3,540	10,108	13,648	14.2	47	1,000	442	23.5	395	23.0	3,125	147	270,297	1,747,650
Great Northern.....1923	48,978	13,827	62,805	7.1	....	1,912	889	31.6	493	28.3	3,748	125	1,018,500	6,403,024
1922	45,140	12,268	57,408	11.6	....	1,845	945	30.9	471	23.2	3,277	122	883,051	6,055,155
M., St. P. & S. Ste. M..1923	19,462	8,846	28,308	7.7	3,420	1,255	608	25.3	399	22.5	2,585	115	492,299	3,125,855
1922	17,905	7,248	25,153	8.3	2,613	1,157	558	22.6	416	24.1	2,405	100	435,698	2,762,487
Northern Pacific.....1923	33,180	13,504	46,684	7.5	2,987	1,682	722	25.0	471	28.7	3,424	118	891,125	6,543,521
1922	32,756	11,402	44,158	15.2	419	1,536	736	25.4	497	26.0	3,434	109	701,505	5,510,167
Ore.-Wash. R.R. & N. Co.1923	6,348	7,883	14,231	3.6	....	1,434	649	25.6	352	20.4	2,335	196	256,898	1,804,857
1922	5,963	3,642	9,605	1.9	....	1,391	665	27.2	520	26.4	2,332	207	262,181	1,830,106
Central Western Region:														
Atch., Top. & S. Fe.....1923	48,864	19,534	68,398	7.9	8,623	1,661	599	20.8	501	37.6	3,458	134	1,763,475	14,051,898
1922	44,621	19,154	63,775	7.3	3,769	1,578	635	22.4	565	36.7	3,679	130	1,521,496	12,019,171
Chicago & Alton.....1923	7,697	7,190	14,887	7.7	....	1,461	651	26.1	512	30.0	7,541	145	293,728	1,783,998
1922	(2)	(2)	(2)	(2)	1,000	1,193	592	25.4	(2)	(2)	3,792	180	232,050	1,441,205
Chic., Burl. & Quincy....1923	46,937	26,212	73,149	5.0	2,988	1,621	749	27.3	562	31.9	4,399	158	1,637,869	11,797,217
1922	42,803	25,957	68,760	9.2	....	1,500	711	26.0	512	27.8	3,775	149	1,567,256	11,050,774
Chic., Rock I. & Pacific.1923	29,833	27,729	57,562	8.3	5,711	1,233	528	24.1	416	26.3	3,135	165	1,307,654	7,893,847
1922	27,464	16,465	43,929	16.4	1,080	1,220	567	23.6	518	28.7	2,969	149	1,319,503	7,894,218
Denver & R. G. Wn....1923	12,221	5,220	17,441	5.4	3,127	1,292	605	28.4	312	16.4	2,102	224	297,387	2,452,965
1922	11,748	4,677	16,425	11.1	1,892	1,324	647	30.0	337	16.7	2,136	207	285,623	2,178,886
Oregon Short Line.....1923	7,772	6,398	14,170	7.2	....	1,384	558	25.2	534	35.1	3,196	135	317,581	2,478,639
1922	6,441	4,263	10,704	3.4	38	1,299	549	26.2	662	41.1	3,001	136	316,773	2,383,329
Southern Pacific 1923	20,259	33,240	53,499	3.6	3,194	1,618	629	23.4	584	39.5	4,504	162	1,511,713	12,655,048
1922	23,082	20,899	43,981	8.1	....	1,573	634	22.4	583	37.5	3,706	150	1,388,667	11,892,607
Union Pacific 1923	18,615	14,252	32,867	7.0	....	1,722	650	20.8	823	57.7	7,296	137	920,361	8,022,528
1922	13,191	9,554	22,745	9.7	1,409	1,671	646	20.6	965	66.6	5,923	134	890,286	7,523,477
Southwestern Region:														
Gulf, Colo. & S. Fe.....1923	5,433	5,682	11,115	5.2	483	1,513	678	25.9	522	30.1	3,060	123	194,942	1,178,560
1922	5,951	4,330	10,281	3.6	285	1,532	731	28.2	596	31.7	3,242	130	197,920	1,143,788
Missouri-Kansas-Texas ...1923	10,419	8,109	18,528	6.1	2,378	1,685	643	21.3	342	26.2	3,520	124	271,837	1,864,396
1922	8,697	9,363	18,060	6.6	553	1,491	622	22.4	297	19.7	2,696	133	248,139	1,913,739
Mo.-Kans.-Tex. of Texas.1923	315	9,348	9,663	12.5	1,247	1,255	506	22.5	303	20.6	2,110	142	254,759	1,569,808
1922	274	10,664	10,938	6.7	165	1,006	440	23.7	235	13.9	1,481	165	188,716	1,319,735
Missouri Pacific 1923	23,493	27,142	50,635	10.1	....	1,422	641	25.4	498	28.7	3,547	143	1,045,684	6,106,511
1922	24,805	25,781	50,586	10.8	....	1,338	630	25.2	398	21.1	2,797	150	809,316	4,914,030
St. Louis-San Francisco..1923	19,971	15,105	35,076	6.9	....	1,110	484	24.6	410	25.0	3,072	169	753,699	4,436,631
1922	18,104	20,940	39,044	9.6	....	966	439	25.6	266	15.2	2,222	196	665,857	3,745,066
Southern Pacific Lines (in Texas and Louisiana)[1].1923	6,039	14,212	20,251	4.7	....	1,276	562	25.6	560	32.3	3,057	118	547,062	3,691,788
1922	6,008	12,878	18,886	7.9	500	1,224	558	26.5	569	31.7	2,898	125	547,899	3,486,087
Texas & Pacific.....1923	3,865	6,488	10,353	9.4	....	1,296	541	22.6	445	28.4	2,357	129	290,988	1,881,721
1922	4,505	7,401	11,906	18.0	....	1,414	602	22.4	368	22.7	2,241	139	235,684	1,577,622

[2]No data available.

Y. M. C. A. Railroad Convention

The sixteenth International Transportation Conference under the leadership of the transportation department of the Young Men's Christian Associations of America will be held at St. Louis, Mo., November 15 to 18 to discuss as a central theme, "Transportation's Fundamental Need." These conferences have been held every three years excepting during the war period and are attended by all classes of transportation men.

This conference will differ from others in that the younger men will have a part in the proceedings. Delegates of the American Railway Employees' Boys' Club and sons of railroad men will divide into groups by railroad systems and each group will report findings on the same general theme that will be discussed by their elders. Transportation leaders from various departments will meet these young men at group luncheons and talk with them about their ambitions and problems. The boys will have equal place with older delegates at the convention banquet.

Entertainment will be furnished by the St. Louis Railway Club and the St. Louis Railroad Y. M. C. A. Music will be furnished by the shopmen's quartette from the Buffalo, Rochester & Pittsburgh.

National Exposition of Power and Mechanical Engineering

The second exposition of Power and Mechanical Engineering is to be held in the Grand Central Palace, New York City, from December 3 to December 8, inclusive. This exposition is being held at the same time that the meetings of American Society of Mechanical Engineers and the American Society of Refrigerating Engineers are being held. In addition, the National Association of Stationary Engineers and affiliated bodies are also organizing the interest of their membership in this exposition. The exhibits will be supplemented by an extensive program of moving picture films to be presented in co-operation with the manufacturers. About 200 exhibitors have signed contracts for space at the exposition. The devices and apparatus to be exhibited are aimed to cover the field of Power and Mechanical Engineering and the many special subjects devoted to this field of engineering work. One section of the exhibits will be devoted entirely to meters and other instruments for power plant control. The managers of the exposition are Fred W. Payne and Charles F. Roth, with offices in the Grand Central Palace, New York.

Annual Meeting of Freight Traffic Officers

The annual convention of the American Association of Freight Traffic Officers was held at Chase hotel, St. Louis, Mo., on Tuesday, October 23, with an attendance of about 350. The meeting was opened by President Fred Zimmerman (C. I. & L.) who described the growth of the association, emphasizing the benefits of the insurance plan. Mr. Zimmerman turned the meeting over to G. H. Ingalls (N. Y. C.) who took the chair and briefly sketched the development of traffic associations in America and that of the Traffic Division of the American Railway Association.

The principal address was by R. H. Aishton, President of the American Railway Association, who spoke on the functions of the traffic division of the A. R. A. and the co-ordination of that division with the other divisions. R. C. Wright (Pennsylvania), chairman of the committee on car service, demurrage and storage, outlined the work of that committee and described the committee as it was in its infancy.

In place of Archibald Fries (B. & O.), chairman of the traffic publicity committee of the association of railway executives, who was unable to attend, Donald D. Conn, manager of the public relations section of the car service division of the American Railway Association, spoke on the formation of regional advisory boards and what they have accomplished. A. S. Dodge, superintendent of the Western Weighing & Inspection bureau, read a paper outlining the functions of the weighing and inspection committee and what it had accomplished. Joe Marshall (A. R. A.) spoke on freight loss and damage prevention.

After the reports of the secretary, the treasurer and the auditor were presented, the meeting considered and approved a ruling of the executive committee that traffic officers whose duties and responsibilities are equal to those of a division freight agent are eligible to membership.

Officers elected were: Fred. Zimmerman, president; Grant Williams (C. M. & St. P.), secretary and treasurer; W. A. Terry (N. Y. C.), first vice-president; F. B. Houghton (A. T. & S. F.), second vice-president; Archibald Fries (B. & O.), third vice-president, and Charles Barham (Southern Freight Association), fourth vice-president. Members of the executive committee elected were J. L. Edwards (A. B. & A.), C. McD. Davis (A. C. L.), R. C. Wright (Penn.), W. C. Maxwell (Wabash) and R. Van Ummersen (B. & A.).

The speakers at the banquet were Dr. Leon Harrison, Rabbi of Temple Israel, St. Louis; Lawrence McDaniel, attorney, and Hon. Harry B. Hawes, congressman.

Union Pacific Appoints Chaplain

The first chaplain in the railroad industry was appointed at a recent meeting of the Colorado division safety committee of the Union Pacific when Rev. S. A. Webber of Denver was appointed committee chaplain. Rev. Webber has been interested in safety work for a number of years having advocated safety measures among the men in the railroad centers where he preached for a number of years before the inauguration of the safety movement by the Union Pacific. Since the movement was officially inaugurated on the system in 1912 he has been actively associated with various committees and as a result has been made a member of the committee with the title of chaplain. Rev. Sherwood A. Webber was born in Ohio in 1862 and was educated at Normal University at Ada, Ohio. In 1889 he was a teacher in Colorado and in 1892 he joined the Colorado Conference of the Methodist Episcopal Church since when he has been an active minister in that denomination. His appointment as chaplain of the safety committee is without compensation.

Rev. S A. Webber

Rock Island Stock for Employees

The Chicago, Rock Island & Pacific has put into effect a plan whereby employees may secure preferred stock on a monthly payment basis. Any employee of the company of more than six months' service may invest in the preferred stock of the railway under this plan. Both 7 per cent and 6 per cent preferred stock may be bought but the total which may be ordered or carried at any one time must not exceed one share for each $300 of annual salary or pension of the employee and shall not exceed ten shares altogether.

The amount to be paid for the stock will be governed by the market price at the time it is purchased. Active employees of six months' service or more will be required to make an initial payment of $5 a share and a monthly payment thereafter of not less than $3 a share. Pensioned employees are permitted to buy, and they are not required to make the initial payment of $5 a share. Ten per cent of the purchase price will be deducted from each monthly pension check.

The company will hold the stock purchased as security for the payments of the balance of the purchase price, which balance will be paid through payroll deductions as authorized by the employee. Interest at the rate of six per cent per annum will be assessed on the unpaid balance, and dividends received on the stock will be applied to the unpaid balance. The employee may make full payment at any time but contracts of purchase are not transferable. An employee may terminate the contract at any time, when the stock will be sold at the current market price.

Traffic News

Shippers of grain at Fort William, Ont., are expecting to send more shipments by vessels owned in the United States, a ruling having been made by the Board of Grain Commissioners which removes the limitation in the law, recently passed, under which American vessels had declined to engage in this traffic. The ruling now given out prescribes only two requirements; (a) the filing of tariffs and (b) the filing by shippers, before loading, of copies of charters or contracts for space.

The Baltimore & Virginia Steamboat Company has been organized and has filed its papers with the Public Service Commission of Maryland to take over and operate two of the boat lines of the Maryland, Delaware & Virginia Railway. These are the Rappahannock and Potomac River lines, the two which have had a profitable business. The new company proposes to issue preferred stock to the amount of $60,000, common stock to the amount of $90,000, and 4 per cent bonds for $850,000, the bonds to be guaranteed by the Pennsylvania Railroad Company.

A conference on forestry and reclamation will be held in New Orleans, La., from November 19 to 22 under the auspices of the Southern Pine Association, the Florida Development Board, the Mississippi Development Board and the New Orleans Association of Commerce. The principal topics to be considered by the conference are the best means of utilizing denuded and cut-over land through reforestation; grazing and agriculture; forestry problems; the revision of the existing reclamation law to make it nationally applicable and the further use of waste lands. Among the men who have been invited to speak are: Julius Kruttschnitt, chairman of the Southern Pacific Company; Carl R. Gray, president of the Union Pacific; C. H. Markham, president of the Illinois Central and Henry C. Wallace, secretary of Agriculture.

The Boston & Florida Limited

The "Everglades Limited" express, heretofore operated over the Atlantic Coast Line between Washington and Florida winter resorts will this winter run through to and from Boston. The New York, New Haven & Hartford announces that it will begin its trips on November 11, a solid sleeping car train to and from Boston daily over the New Haven, the Pennsylvania and the Atlantic Coast Line. There will be through sleepers to Miami and east coast points, to Tampa and to St. Petersburg; and one sleeper Springfield, Mass., to Jacksonville.

Freight Traffic of the Country for Eight Months

Freight traffic during the first eight months of this year, as measured by net ton miles, was greater than ever before in a corresponding period; but in the month of August, as in July, the figures fell below those for the corresponding months of both 1918 and 1920, although the car-loading figures for this year have shown increases. Net ton miles for the eight months ending with August aggregated 304,267,000,000, an increase of 3.6 per cent as compared with 1920, the previous record year, and of 5.5 per cent as compared with the war year, 1918. As compared with last year, when there was a coal strike and a shop strike, the increase was 33.5 per cent. For the month of August the net ton miles aggregated 40,354,648,000, as compared with 42,706,838,000 in 1920 and 40,776,125,000 in 1918, although there was an increase of 32 per cent as compared with August, 1922.

The fact that the ton miles for August make a smaller showing than the car-loading figures is partly accounted for by the fact that the average load per car, 28.5 tons, was less than that for August, 1918, when it was 30.1 tons, or August, 1920, when it was 29.8 tons, although exceeding the average for any other August. The average load for August was the same as that for July. The average mileage per car per day in August, however, 28.2 miles, exceeded that for any previous August, and represented an increase of 0.4 miles as compared with July.

In the Eastern district, freight traffic for the eight months amounted to 160,464,000,000 net ton miles, an increase of 42 per cent over the same period last year, while in the Southern district it was 41,287,700,000 net ton miles, or an increase of 20 per cent. The Western district showed an increase of 23.8 per cent over the corresponding period last year, traffic amounting to 102,594,993,000 net ton miles. For the month of August alone, the Eastern district showed an increase of approximately 50 per cent, the Southern district 25 per cent, and the Western district 14 per cent.

President Not Attempting to Influence I. C. C.

President Coolidge, in letting it be known last week that he had suggested to President Rea of the Pennsylvania, that he thought it would be helpful if the railroads could reduce export rates on wheat and readjust rates on anthracite coal, did not wish to be placed in a position of seeming to attempt to influence the Interstate Commerce Commission, it was officially stated at the White House on Tuesday. The President would prefer to be understood as having merely expressed a hope that it might be found possible for the railroads to give some relief in that direction but with a full appreciation of the fact that the rate questions involved are definitely and formally before the Interstate Commerce Commission, which has investigations pending as to grain rates and also anthracite rates. This statement was brought out by a question as to whether the President had received any reply to his suggestions from the railroad executives. It was stated that no replies had been received or were expected; that the President had merely made a suggestion to Mr. Rea of his hopes rather than of any definite conclusion on his own part; and that he had understood that it had been received in a friendly spirit.

"New York Central Lines Night" in Brooklyn

"New York Central Lines night" was celebrated by the Traffic Club of the Brooklyn Chamber of Commerce, Brooklyn, N. Y., on October 19. George H. Ingalls, vice-president of the New York Central Lines, made the principal address, saying, in part:

"This gathering irradiates the future with a rainbow of hope—hope for a new era of mutual sympathy, understanding and co-operation; hope that is all the more inspiring because of what has gone before. At the correct psychological moment you, gentlemen of Brooklyn, stand up before all the world and profess your faith in the Trinity of Commerce, Industry and Transportation—three in one and indivisible; a trinity in enterprise, one in interest. * * * For 1923 the railroads collectively promised to spend $1,100,000,000 and to bunch all their track work in summer months; and made other promises. And how have these promises been fulfilled? They have been fulfilled to the letter and on schedule time. In spite of the astounding record of efficient service, there has been continuously a surplus of idle cars and locomotives waiting for something to do. Next winter you may read in half-baked and altogether pestiferous periodicals indignant lamentations for the six billion dollars, more or less, as good as lost to the world because the railroads collected that amount in revenues in 1923. But those billions, which are rolling into railroad tills in a never-ending stream, do not linger long enough for the treasurer to give them even one fond caress. They pour as steadily out, bearing benisons on their golden bosoms to every nook and cranny of this broad land.

"* * * Whatever our vocation may be we must never magnify our own little affairs, or the affairs of our clan or class, until they shut out our view of life and duty in their broader aspects. Whatever other obligations may be imposed upon us, we must never forget that our duties as citizens take precedence of everything else. To give the best that is in you to your business, your profession or your calling is not enough. We must also give time and thought and earnest effort to the duties of citizenship if we are to continue to have a business, a profession, a job, or a country.

"Our present great tax burden is stifling enterprise. The National Industrial Conference has calculated that the country's margin above operating and living expenses, available for taxes and investment is now two billion dollars short of the amount of new capital annually required to maintain normal development. In other words, this super-regulation of all enterprises with its corollary of impossible taxes, is already checking the growth of America, and will inevitably choke the life out of it, just as parasitical vines choke to death a tree in a tropical forest. * * * Let us first do our full duty as citizens and other things will be added unto us."

Commission and Court News

Interstate Commerce Commission

The commission has reassigned the hearing on depreciation charges of steam railroads set for November 7 at Washington, for November 19 at Washington before Division 4 of the commission.

A hearing on the administration of the fourth section of the commerce act will be held at Chicago on November 1 and another at Washington on November 17 before Commissioner Cox and Examiner Bardwell.

The Kansas grain rate case, recently reopened, is assigned for hearing on November 14 at Kansas City before Commissioner Aitchison and Examiners Keene and Beach, and also at such other times and places as may hereafter be fixed.

Divisions of Western Rates to be Investigated

The Interstate Commerce Commission on October 23 announced that it had entered an order on October 8 for an investigation into the divisions of freight rates in the Western and Mountain-Pacific territories, but that, for the present and until further notice, the scope of the investigation will be limited to the consideration of divisions east and west of St. Paul, Minneapolis and Minnesota Transfer and Missouri river crossings, Kansas City to Dubuque, inclusive, of the revenue received on traffic to and from Pacific Coast terminals and points taking the same rates from, to and through Chicago and Peoria and points on the Mississippi river, St. Louis to St. Paul and Minneapolis, inclusive.

The Interstate Commerce Commission will hear arguments at Washington on November 2 in a number of valuation cases, including those of the Mobile & Ohio and the New York, Ontario & Western.

I. C. C. Asks State Commissions to Co-operate in Anthracite Investigation

Commissioner McChord, of the Interstate Commerce Commission, is trying to arouse additional interest in the commission's investigation of rates, etc., applicable to the transportation of anthracite coal, which the commission undertook in response to a recommendation by the United States Coal Commission, by writing to the state commission of Maine, New York, New Jersey, Connecticut, Rhode Island, Vermont, Massachusetts, Pennsylvania and New Hampshire suggesting that the investigation will be of immediate interest to the state commissions and that it would be in line with the existing plan for co-operation between the various state commissions and the federal commission if it were to have their active co-operation and assistance in the course of the hearings which have been scheduled for various dates and places in October and November. Commissioner McChord, who is in direct charge of the investigation, calls attention to the fact that at the hearing at Pittsburgh on September 24 interested carriers appeared and submitted evidence, while but three outside interests submitted evidence and that, respecting minor rate matters. He said that the commission has reopened the case, feeling that the ground should be more thoroughly covered, if possible, and that the purpose is to afford all interested parties full opportunity to appear and state their grievances and submit concrete suggestions as to the action they believe the commission can and should take to afford them relief.

Hearings on Assigned Cars

Hearings in the assigned car case, which the commission recently decided to reopen, were resumed at Washington on October 22 before Commissioner Aitchison and Director Bartel, of the commission's Bureau of Service. The first two days were taken up by the testimony of various railroad officers as to the importance of the assigned car in assuring a regular and dependable supply of fuel. Testimony was given by those who had had experience on roads which did not assign cars and which had difficulty in securing a regular supply, and on other roads where they had obtained much more satisfactory results from the practice of assigning cars. Testimony was also given as to the difficulties experienced when it becomes necessary to use in a certain district fuel to which the firemen are not accustomed and for which it is necessary to readjust the drafts of the locomotive. The New York Central had several witnesses but the Pennsylvania and Louisville & Nashville announced that they would rely on the testimony given at the previous hearings on behalf of the American Railway Association. The railroad testimony was to be followed by that of owners of private cars.

Shortly before noon on Tuesday Commissioner Aitchison adjourned the hearing to give an opportunity to the railroads to check up what appeared to him to be discrepancies in the replies made by certain roads to a questionnaire during the previous hearings (last fall), to the effect that they did not follow the practice of assigning cars, with statements of car service officers at this time that they did furnish cars for railroad fuel at times when their fuel supply was short, in preference to commercial mines. The commissioner asked which of the conflicting statements were to be considered correct. After luncheon the witnesses were recalled and stated that they thought the replies had been made by their vice-presidents in accordance with their understanding of the meaning of the term "assigned cars"; that they had meant that they did not have the practice of assigning cars to mines for their full output, although when the railroad needed fuel it was the general practice to furnish cars for it and to attempt to equalize the supply of the commercial mines later. One road stated that it was not assigning cars at the time the questionnaire was sent out, although it had done so on occasions since.

Court News

Station Grounds Under Fencing Statute

The Circuit Court of Appeals, Eighth Circuit, holds that a strip of land at a division station, about 2,500 ft. long, containing tracks, round-house, coal sheds, elevators, warehouses and stockyards, to which the public required access, are part of station grounds exempt from fencing under the Minnesota fencing statute. A fencing statute requiring fences on each side of railroad lines except in certain places imposes no duty to fence at any place on one side only.—Leroy v. Davis, 290 Fed. 60.

Enforcement of Contract to Use Another Railroad's Tracks

If a contract giving a railroad company a continuing right to use the tracks of another company to serve certain industries located along these tracks is valid, the federal District Court for the Eastern District of Michigan holds that the inadequacy of a remedy at law, and the consideration of the public interest indicated, entitle the company to specific performance of the contract.—Detroit & Toledo S. L. v. D. T. & I., 290 Fed. 549.

Practical Construction of Ambiguous Grant of Right of Way

Where a deed for a right of way for a double-track railway is ambiguous and uncertain as to the width of the right of way, but the parties thereafter treat the right of way so granted as being 100 ft. wide, as shown in subsequent deeds for land along the right of way, and by occupation by telegraph lines, presumably under the railroad's authority or control, the West Virginia Supreme Court of Appeals will adopt this practical construction placed by the parties on the original grant.—Miller v. C. & O. (W. Va.) 116 S. E. 521.

Terminal Charges Governed by Time Limit Applicable to Contracts

The intention of sections 1 and 6 of the Interstate Commerce Act was to put terminal and storage charges on the same basis as freight, and to make them as much a part of the contract of transportation as freight (Southern v. Prescott, 240 U. S. 632). The Circuit Court of Appeals, Fourth Circuit, holds that by acceptance of cars the consignee be-

comes bound by the terms of the bills of lading and contracts to pay the reasonable demurrage charges provided for therein. Actions for such demurrage charges are therefore not barred by the Virginia one-year statute of limitations, but by the three-year limitation applicable to contracts.—Hines v. W. F. Richardson, Jr., Co., 290 Fed. 162.

Crossing Accident—Contributory Negligence as Matter of Law

The Circuit Court of Appeals, Eighth Circuit, reversing a judgment for plaintiff in the District Court for the Eastern District of Missouri, states the general rule in that jurisdiction to be that "a person who drives upon a track at a highway crossing in front of an approaching train, which he could have seen had he looked, or could have heard had he listened, is in law guilty of contributory negligence, and cannot recover damages from the railroad company." Some cases may be so unusual in their circumstances that the question of contributory negligence should be left to the jury. The driver of a motor truck, struck by a train visible for 375 ft. after he had passed an obstruction 27 ft. from the track, was held guilty of contributory negligence, which was not excused by open gates or the railroad's failure to give signals.—Wabash v. Huelsmann, 290 Fed. 165.

Crossing Accidents—Contributory Negligence Held for Jury

Where the approaching train was coasting at the rate of 50 miles an hour, and there were no street lights or lighted buildings near, no gates, flagman or signal bell at the crossing, and the plaintiff was occupied in managing his horse and buggy, the Circuit Court of Appeals, Second Circuit holds that these circumstances, with the presumption that plaintiff exercised reasonable care and caution, made the question of contributory negligence one for the jury.—Lehigh Valley v. Quereau, 289 Fed. 767.

Where the evidence conflicted as to the railroad's negligence in allowing its automatic crossing signals to get out of repair and failing to sound the engine's whistle and bell, and also as to plaintiff's contributory negligence in driving an automobile on the crossing, the Circuit Court of Appeals, First Circuit, holds the proximate cause of injury to be a question for the jury.—B. & M. v. Dutille, 289 Fed. 320.

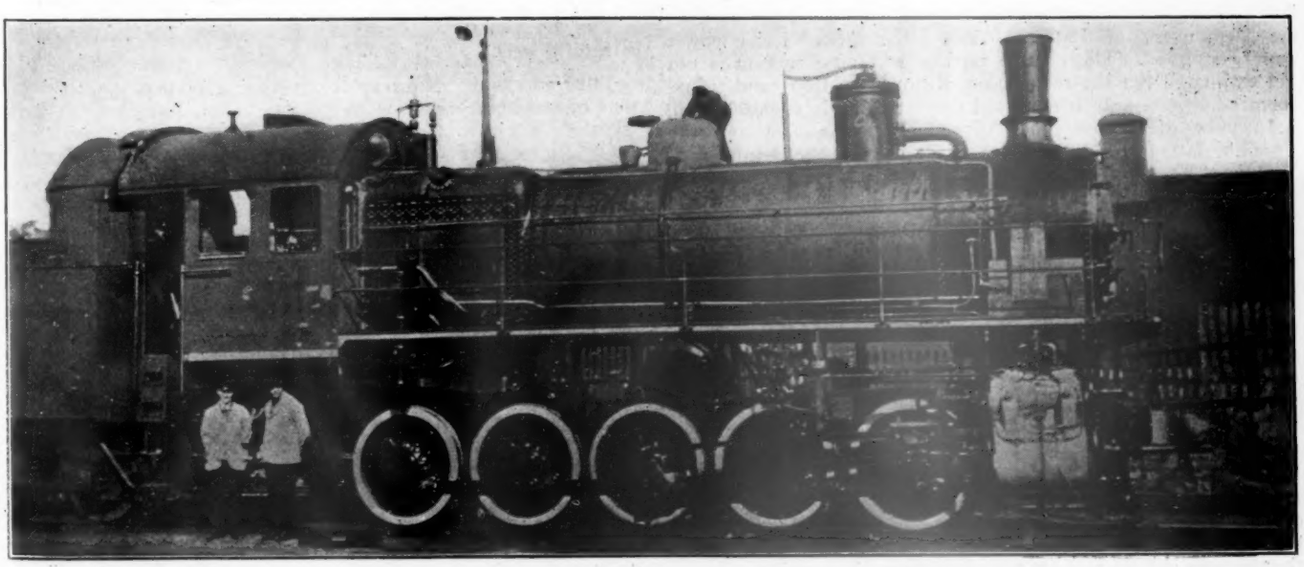
Where the view was obstructed and the train was moving at 45 to 60 miles an hour, the Circuit Court of Appeals, Sixth Circuit, holds the contributory negligence of the driver of a motor truck attempting a crossing in a town was a question for the jury.—B. & O. v. De Leone, 289 Fed. 201.

Supreme Court of the United States

Engineman Cannot Recover for Injury Primarily Due to His Own Fault

Action was brought in Missouri against the Chicago, Burlington & Quincy under the federal Employers' Liability Act for the death of the engineer of one of its engines caused by a collision in Illinois between his engine and a Wabash train at a crossing. An Illinois statute requires all trains approaching such a crossing to be brought to a full stop within 800 feet therefrom and the engineer shall positively ascertain that the way is clear before proceeding. The engineer, Frese, stopped 200 feet from the crossing and the Wabash train stopped at about 300 feet from it. But the view of the Wabash track from the Burlington road was obstructed intermittently and the two trains did not discover each other, but started again and collided, killing Frese. The Supreme Court of Missouri held that the Illinois statute imposed upon Frese the imperative duty positively to ascertain that the way was clear before entering upon the crossing; that if he had done so he would not have been killed, and that the plaintiff could not recover. Judgment was ordered for the defendant.

The case came before the Supreme Court of the United States on certiorari, where the plaintiff contended that there was evidence of contributory negligence on the part of the fireman, Savage, and therefore that even if Frese had been negligent that would not be a bar to the action, it being under the Employers' Liability Act. But the Supreme Court points out that the only evidence as to the fireman came from a man who was standing on the ground as the engine passed him. He thought the fireman was looking through the front window and that he continued in that position up to say 50 feet from the crossing. The fireman was on the side of the Wabash train, the engineer on the right where he could not see so well. But of course the witness could not testify which way the fireman turned his eyes after he saw only his back, and it was a mere speculation to argue that Savage did not do all that he could. Moreover the statute makes it the personal duty of the engineer positively to ascertain that the train can safely resume its course. Whatever may have been the practice he could not escape this duty, and it is held that it would be a perversion of section 3 of the Employers' Liability Act to hold that he could recover for an injury primarily due to his failure to act as required, on the ground that possibly the injury might have been prevented if his subordinate had done more. If the engineer could not have recovered for an injury his administratrix could not recover for his death. Judgment for defendant was affirmed.—Frese v. Chicago, B. & Q. Decided October 15, 1923. Opinion by Justice Holmes.



Times Wide World Photo

A Swedish-Built Locomotive for Russia, One of 500

Foreign Railway News

The Extent of Damage to Japan's Railways

TOKIO, September 21.

The railway lines radiating from Tokio, almost all of the trunk lines handling the heaviest freight and passenger traffic in the country, have been badly affected by the great earthquake and the conflagration that followed it. They have, indeed, been crippled. In spite of the last fortnight's endeavors on the part of railway authorities and corps of engineers they are not yet restored.

The great earthquake having found its center of disturbances in the sea near Yokohama, its damage to the railways was mainly found on the Tokio-Kobe trunk line. With the first quake of September 1 all trains on the line were stopped. Near Suzukawa station, Shizuoka prefecture, a train was derailed by a big landslide. The railway bridge over the river Kise was broken in two and a train dropped into the river. At Hakone the earthquake caused tracks to be buried under huge rocks and masses of earth. Practically all tunnels within 100 miles' radius of Tokio were damaged. One at Yamakita was especially seriously damaged. In Tokio itself the damage of the earthquake itself was comparatively not very serious. At Yokohama, several station buildings were destroyed. On local lines also serious damage was reported, but the only striking damage done by the earthquake itself was the sinking of a section under sea in Chiba prefecture.

More damage was done by the conflagration following the quake. In Tokio three stations, termini of three trunk lines radiating from Tokio, were burnt down with all their office buildings, warehouses and other accessory buildings. At Yokohama both freight and passenger stations were destroyed. The Government Railways' power stations and transformers were also seriously damaged and it will be some time before they will be restored.

The Department of Railways reports that 386 passenger cars were lost in Tokio alone, together with 33 locomotives and 31 electric cars. Only a few of locomotives can be reconditioned for service.

The Minister of Railways' statement also states that the damage done to the railways by the earthquake and conflagration has proved to be more serious than ever imagined or expected. Thanks to the strenuous endeavors of officers and men and efficient help given by army engineers trains are again run on the Tokio-Kobe trunk line, but it will be still considerable time before they can be operated normally. The interurban passenger service has been restored as far as possible as a help to sufferers, but its maintenance is very difficult. The Tokio-Yokohama electric train service cannot be restored as the Department of Railways finds all sources of its power supply stopped. The cost of repairs or reconstruction is not yet estimated but the restoration of power stations and transformer stations only is expected to cost roughly 6,000,000 yen.

In view of the enormity of reconstruction cost and the possible falling off in receipts for the year the Minister of Railways has just issued an instruction to the construction bureaus in the different zones that all new construction work, planned but not actually begun, be stopped or postponed. It is stated that all these undertakings postponed will be held off until reconstruction is complete and the government's finances are placed on sounder basis. The Department of Railways is expected to stick to its plan of electrifying the Tokio-Kobe trunk line in the next five years, which has already been partially carried out. But it is stated by a report emanating from reliable sources that the plan must be altered to some extent.

W. T. TRISLER, division road master of the St. Louis-San Francisco at Vinita, Okla., is strictly up to date. Following the recent extensive floods in that region, putting his road out of business between Oklahoma City and Jones, 17 miles, he hired an airplane with which to traverse his tracks, and thereby was able to make a very full report in one day.

Equipment and Supplies

Locomotives

THE MARYLAND & PENNSYLVANIA contemplates buying 1 Consolidation type locomotive.

THE SOUTHERN PACIFIC, reported in the *Railway Age* of October 13 as inquiring for 58 locomotives, has ordered 17, 2-10-2 type and 8 Pacific type locomotives from the Baldwin Locomotive Works and has placed an order for 18 Mountain type locomotives with the American Locomotive Company.

Freight Cars

THE YOSEMITE VALLEY is inquiring for 50 hopper cars.

THE CHESAPEAKE & OHIO is inquiring for 25 caboose cars.

THE CENTRAL OF BRAZIL is inquiring for 200 steel gondola cars.

THE NATIONAL RAILWAYS OF MEXICO are inquiring for 425 single sheathed box cars.

THE ST. LOUIS SOUTHWESTERN is asking for prices on the repair of from 500 to 1,500 box cars.

THE ANGLO-MEXICAN PETROLEUM COMPANY is inquiring for 1 tank car of 9,000 gal. capacity.

THE CHICAGO, BURLINGTON & QUINCY is inquiring for 1,000 gondola cars of 50 tons' capacity.

THE CHICAGO & ALTON order mentioned in the *Railway Age* of October 20 was for 250 gondola cars placed with the Pullman Company and for 350 gondola car bodies which was placed with the Ryan Car Company.

Passenger Cars

THE CORNWALL RAILROAD is inquiring for 1 gasoline rail car.

THE CHESAPEAKE & OHIO, reported in the *Railway Age* of September 8 as inquiring for 6 combination mail and express cars, has ordered this equipment from the Pullman Company.

Iron and Steel

THE MISSOURI PACIFIC is inquiring for 11 plate girder spans.

THE LOUISVILLE & NASHVILLE is inquiring for 1,600 tons of structural steel.

THE VICKSBURG, SHREVEPORT & PACIFIC is inquiring for 300 tons of structural steel.

Machinery and Tools

THE LEHIGH VALLEY is inquiring for about six machine tools.

THE MISSOURI PACIFIC has ordered one 200-ton locomotive hoist from the Whiting Corporation.

THE NORFOLK SOUTHERN is inquiring for 1 motor driven grinding machine; 24-in. lathe; 6 ft. radial drill; 2 steam hammers, one 800-lb. and the other of 1,100-lb. capacity; tool room lathe and a side head boring mill.

Miscellaneous

THE LONG ISLAND, reported in the *Railway Age* of October 13 as having placed an order for 60 steel motor passenger cars for electric service with the American Car & Foundry Co., has given a contract to the Westinghouse Electric & Manufacturing Co., for the delivery of electric equipment for these cars.

Supply Trade News

The Blaw-Knox Company, Pittsburgh, Pa., has opened a branch office at 622 Genesee Bldg., Buffalo, N. Y., and **J. C. McQuide** has been transferred from Pittsburgh as manager of the Buffalo office.

The Sprague Safety Control & Signal Corporation, New York, has opened a permanent western branch in Room 959, Illinois Merchants Bank building, Chicago. **F. D. Sprague,** chief engineer, will be in charge with technical assistants to handle both the train control and additional signal work.

The Mahr Manufacturing Company of Minneapolis, Minn., manufacturers of rivet forges, torches, furnaces and kindred oil burning equipment, has moved its New York office from 56 Murray street to larger quarters at 42 Murray street. **Ray G. White** is the district representative of the company at New York.

David Newhall of Philadelphia, Pa., has been appointed a sales representative in the steel car department of the **Bethlehem Steel Company,** with headquarters at Bethlehem. Mr. Newhall, before the war, was vice-president in charge of sales of the Geo. M. Newhall Engineering Company; this firm did an extensive railroad business in the East.

The Linde Air Products Company, New York, recently started continuous operations in its new plant at Tulsa, Okla. Oxygen will be extracted from the air by the liquefaction process. The plant is also able to reclaim the nitrogen and separate the rare gases, argon and neon. **C. A. Kennedy** is operating superintendent. A Prest-O-Lite plant, for the manufacture of welding and cutting gas, is also planned for the same locality.

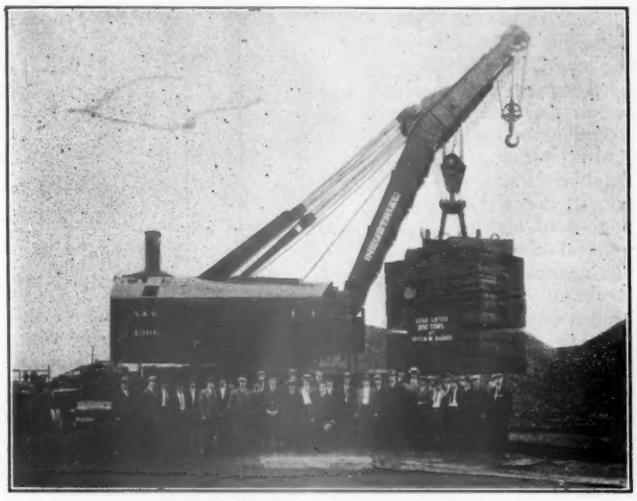
Charles M. Brown, who has been elected president of the **Colonial Steel Company,** Pittsburgh, Pa., as was announced in the *Railway Age* of October 13, was born on October 16, 1870, at Pittsburgh. He graduated from Yale University in 1891, with the degree of A. B., and from the following August served with Howe, Brown & Co., Ltd., Pittsburgh, until that firm was absorbed by the Crucible Steel Company of America. Mr. Brown served for one year in the sales department of the latter company. In 1901, when the Colonial Steel Company was formed he became secretary and general sales manager. About 1917, he was made vice-president in charge of sales and now becomes president of the same company, as above noted.

The Case Crane & Engineering Company, Columbus, Ohio, has acquired the Kilbourne & Jacobs business, including the factory, good will, patent rights, and assets of all kinds and will hereafter operate it as the Kilbourne & Jacobs Manufacturing division of that company. This factory has been operating continuously without interruption under the receiver, and shipments of standard material during certain months of the receivership have been the largest in the history of the business. This represents a continuance and not an interruption. The new owners are now manufacturing and expect to continue to manufacture all of the standard Kilbourne & Jacobs products, including such contractors' items as wheelbarrows, scrapers, etc., warehouse trucks, air dump cars, contractors' side dump and other cars and industrial cars of quite a broad variety.

The Electric Heating Apparatus Company, manufacturers of Multiple Unit and Heavy Duty electric furnaces, with general offices and works at Newark, N. J., has recently terminated an agreement with the Westinghouse Electric & Manufacturing Company for the exclusive sale of their special furnaces. The Electric Heating Apparatus Company has enlarged its sales and service department and has established a district office in Chicago. **F. A. Hansen,** formerly in charge of sales of electric furnaces in the Chicago territory for the Westinghouse Electric & Manufacturing Company, has been appointed district manager for the Electric Heating Apparatus Company in the Chicago territory with office in the Marquette building, Chicago.

Industrial Works Celebrates Fiftieth Anniversary

The Industrial Works, Bay City, Mich., which was established in 1873, celebrated its fiftieth anniversary on October 13, at Bay City. The celebration included a sales conference of all representatives of the Industrial Works from all principal points of the United States, Canada, Cuba and South America. Another feature was a test of a 200-ton wrecking crane which had been built for the Norfolk & Western. At the banquet addresses



A Two Hundred-Ton Crane Tested at Fiftieth Anniversary of the Industrial Works

were made by William L. Clements, president, C. R. Wells, secretary and treasurer, and Ernest B. Perry, general manager.

The Industrial Works was started in 1873 with a working force of 30 men in a factory building 75 by 100 ft. The plant today covers 29 acres of ground, and includes 59 buildings with 440,000 square feet of floor area, 5 miles of railroad track and employs 1,800 men. The 59 buildings include a foundry and pattern, blacksmith, boiler, bucket, car, canopy, electrical, paint, pipe and machine shops, each of which is a complete unit. Besides there is a pattern storage building, an employees' restaurant, a garage, and an office.

Obituary

Charles Harris, of Hartsdale, N. Y., for many years identified with the iron and steel industry and the railroad supply business, died at the French Hospital, New York City, October 21, at the age of 59. Death was due to a complication of diseases, his illness extending over a period of several weeks. Mr. Harris first became associated with the iron and steel business at Cleveland, Ohio. Later he transferred his headquarters to New York City and was highly regarded for his expert knowledge of the conditions in this industry. He also became associated with several companies in the railway supply field. He retired from active business about five years ago because of failing health.

Charles Harris

Hillis F. Hackedorn, district manager at Chicago for the **H. H. Robertson Company,** Pittsburgh, Pa., died in Chicago on October 19. Mr. Hackedorn was formerly president of the Hackedorn Construction Company of Indianapolis, Ind., where he was engaged principally in the construction of bridges. Mr. Hackedorn's company was one of those employed in rebuilding bridges at Dayton, Ohio, following the flood in 1913. During the war, Mr. Hackedorn served as a major in the Ordnance department of the United States Army at Philadelphia, Pa. At the end of the war, he was appointed editor and general manager of an engineering and construction journal with headquarters at Chicago. A few years later he resigned this position to enter the service of the H. H. Robertson Company in the capacity of branch manager of the Detroit, Mich., office. In December, 1921, he was appointed district manager with headquarters at Chicago, which position he held until his death.

H. F. Hackedorn

Trade Publications

CINDER HANDLING PLANT.—Roberts & Schaefer Company, Chicago, has issued a four-page folder illustrating and describing the Junior N. & W. type cinder plant. In addition to a general description there is included a list of 10 advantages claimed for this equipment as regard considerations affecting the construction, operation and maintenance of such plants.

GAS WELDING AND CUTTING EQUIPMENT.—The Torchweld Equipment Company has issued a new catalog covering its complete line of oxy-acetylene welding and cutting apparatus, lead welding, soldering, brazing and decarbonizing units, gas pressure regulators, automatic machines, generators and supplies. The catalog contains cross sectional views of equipment with detailed explanations. The catalog is 8½ in. by 11 in. and consists of 40 pages.

COMMERCIAL OXYGEN.—An attractively prepared bulletin describing the plant and process used in producing oxygen from the air by the Oxeco liquefaction method has recently been issued by M. Keith Dunham, Chicago. This bulletin contains thirty-four 5-in. by 11-in. pages. Numerous illustrations of the equipment are included; also a large scale colored insert giving a sectional view of the entire plant for producing oxygen from the air. The production process is described in detail with emphasis on the function of various parts of the equipment, including the caustic solution mixing tank, caustic solution pump, air purifying towers, four-stage air compressor, oil purging plant, drying battery, high pressure filter, thawing coil, liquefaction column, gas meter, gas holder, oxygen gas compressor and cylinder charging ramp.

CAR SERVICE RULE No. 12 of the American Railway Association, prohibiting the placing of advertisements on cars, is to be further discussed by the Transportation Division with a view to making additional modifications. The agitation of the question of the enforcement of the rule has brought out the fact that advertisements have been placed on passenger cars and passenger locomotives, and it is desirable to make the rule more comprehensive. The letter ballot which was taken (circular No. 2376) did not result in the approval of any change. It is now proposed to frame a rule under which this matter will be policed by the agents of the Car Service Division. Action will be taken looking to the issuance of another letter ballot.

Railway Construction

ATLANTIC COAST LINE.—This company has awarded a contract to Roberts & Schaefer Company, Chicago, for the construction of a 500-ton three-track automatic electric coaling station at Waycross, Ga.

BALTIMORE & OHIO.—This company, jointly with the Pittsburgh, Cincinnati, Chicago & St. Louis and the Chicago Terminal, has been granted permission by the South Park Commissioners of Chicago to elevate their tracks over Garfield boulevard in that city, the company's plans having been approved by the commission.

BALTIMORE & OHIO.—This company plans the construction of an eight-story ice and cold storage plant at Toledo, Ohio, at a cost of over $2,000,000.

CHESAPEAKE & OHIO.—This company has awarded a contract to Joseph E. Nelson & Sons, Chicago, for the construction of water treating plants at Moorehead, Ky., and Olive Hill, and Hurricane, W. Va., and Sproul.

CHESAPEAKE & OHIO.—This company plans the construction of a roundhouse and machine shop at Ironton, Ohio.

CHICAGO, BURLINGTON & QUINCY.—This company plans the construction of a new freight yard at Willows, Ill., about 2½ miles east of Bridge Junction, East St. Louis, at an estimated cost of $700,000. The yard will have a capacity of 1,100 cars and will cover approximately 90 acres of land, which is now being purchased.

CHICAGO, BURLINGTON & QUINCY.—This company, jointly with the Colorado & Southern, contemplates the construction of a new passenger station at Longmont, Colo. The old Burlington passenger station is to be used as a joint freight office.

CHICAGO, NORTH SHORE & MILWAUKEE (Electric).—This company will construct an addition to its freight station at Sixth and Sycamore streets, Chicago, at a cost of $16,800.

FORT DODGE, DES MOINES & SOUTHERN (Electric).—This company has awarded a contract to W. J. Zitterell Company, Des Moines, Iowa, for the construction of a new car house at Boone, Iowa. This company is also constructing a new brick and concrete car house and yard office at Fort Dodge, Iowa, at a cost of $150,000, to replace the buildings recently destroyed by fire.

ILLINOIS CENTRAL.—The attorney general of Illinois and others have filed a petition with the Interstate Commerce Commission asking for a vacation of the order and a reargument before the full commission in the case in which the commission issued a certificate for the construction of the Illinois Central new cut-off line in Southern Illinois under the name of the Southern Illinois & Kentucky. The petition says that only two commissioners heard the argument and that they disagreed and that the tie thus created was decided by the vote of a third commissioner who had not heard the argument. The report in this case was rendered by Division 4 of the commission, consisting of Commissioners Meyer, Eastman and Potter. The order in the case showed that Commissioner Eastman had dissented, while Commissioner Potter wrote a concurring opinion. The petition challenges the jurisdiction of the commission and says it is considered probable that the eight commissioners "who have not yet participated in this case" probably would favor the contentions of the protestants.

ILLINOIS CENTRAL.—This company has awarded a contract to Joseph E. Nelson & Sons, Chicago, for the construction of a water treating plant and pumping station at Powderly, Ky.

NEW YORK, CHICAGO & ST. LOUIS.—This company plans the construction of additions to its shops at Frankfort, Ind., including a new engine house, repair shop and related structures.

NORTH AND SOUTH.—This company has applied to the Interstate Commerce Commission for a certificate authorizing the construction and operation of a railroad from Miles City, Mont., to Casper, Wyo., 332 miles, and to acquire and operate as part of the line any lines now constructed or under construction over the route. The application was filed by William Cannon, 383 Madison avenue, New York.

Railway Financial News

CENTRAL NEW ENGLAND.—*Six Months' Guaranty Certified.*—The Interstate Commerce Commission has issued a final certificate placing the amount of this company's guaranty for the six months' period of 1920 at $1,551,874, of which $19,204 was still to be paid on the final certificate.

CHICAGO & ALTON.—*Defaults on Rental of Subsidiary.*—See Rutland, Toluca & Northern.

DENVER & RIO GRANDE WESTERN.—*Asks Authority to Operate Spur.*—The receiver has applied to the Interstate Commerce Commission for authority to acquire and operate the spur track from the mine of the Alamo Coal Company to a connection with the Denver & Rio Grande Western.

GALVESTON & WESTERN.—*Acquisition.*—See Gulf, Colorado & Santa Fe.

GREAT NORTHERN.—*New Directors.*—F. L. Paetzold, secretary and treasurer of this company, and Joseph Chapman, of Minneapolis, have been elected directors to succeed P. L. Howe, of Minneapolis, and W. B. Dean, deceased.

GREENWICH & JOHNSONVILLE.—*Asks Authority to Issue Bonds.*—This company has applied to the Interstate Commerce Commission for authority to issue $500,000 of first mortgage, 6 per cent gold bonds to provide for the payment of a maturing issue. The bonds are expected to be purchased by the Delaware & Hudson, which owns the stock of the applicant.

GULF, COLORADO & SANTA FE.—*Authorized to Acquire Line.*—This company has been authorized by the Interstate Commerce Commission to acquire by purchase certain property rights and franchises of the Galveston & Western, including a line in the city of Galveston, Tex., and to operate the line.

ILLINOIS CENTRAL.—*Authorized to Issue Stock.*—The Interstate Commerce Commission has authorized an issue of $12,022,450 of preferred stock to be sold at not less than par and the proceeds used for construction purposes; also a like amount of common stock to be issued in conversion of the preferred stock.

KANSAS CITY TERMINAL.—*Asks Authority to Issue Notes.*—This company has applied to the Interstate Commerce Commission for authority to issue $10,000,000 of 5½ per cent, three-year notes, maturing November 12, 1926, the proceeds to be used to refund $9,850,000 of 6 per cent notes which mature on November 15. The bonds have been sold to Lee, Higginson & Co., at 97½.

MINNEAPOLIS, ST. PAUL, SAULT STE. MARIE.—*New Director.*—George H. Paridge, of Minneapolis, Minn., has been elected a director to succeed Oliver P. Wyman.

NEW YORK CENTRAL.—*Settlement with Railroad Administration Effected.*—The director general of railroads has announced that a final settlement covering the 26 months of federal control has been reached with the New York Central and four subsidiaries by which they will pay the government a balance of $23,000,000, largely consisting of the excess of capital expenditures over the amounts owed by the government to the roads. The Interstate Commerce Commission has also issued final certificates fixing the amount of the six months' guaranty following the period of federal control for four New York Central subsidiaries. In the case of the Michigan Central the amount is $2,049,827, of which $1,139,827 remained to be paid. In the case of the Kanawha & Michigan the amount was $303,412, of which $200,412 remained to be paid. In the case of the Toledo & Ohio Central the amount was $619,686, of which $513,686 remained to be paid, and in the case of the Cleveland, Cincinnati, Chicago & St. Louis the amount was $3,434,911, of which $2,964,911 remained to be paid.

NEW YORK, NEW HAVEN & HARTFORD.—*Six Months' Guaranty Certified.*—The Interstate Commerce Commission has issued a final certificate placing the amount of this company's guaranty for the six months' period following the termination of federal control at $14,708,406, of which $2,891,206 remained to be paid on the final certificate.

NEW YORK, ONTARIO & WESTERN.—*Asks Authority to Lease Roads.*—This company has applied to the Interstate Commerce Commission for a certificate authorizing a lease by the Delaware & Hudson to, and continued operation by, the New York, Ontario & Western of the Utica, Clinton & Binghamton and the Rome & Clinton.

NORFOLK & WESTERN.—*Extra Dividend.*—The directors have declared an extra dividend of 1 per cent in addition to the regular quarterly dividend of 1¾ per cent on the common stock, both payable December 19 to stock of record November 30, 1923.

A year ago a similar extra dividend of 1 per cent was declared on the common.

OAKDALE & GULF.—*Authorized to Abandon Line.*—This company has been authorized by the Interstate Commerce Commission to abandon the operation in interstate and foreign commerce of its line from Caney to Wards, La., 5.13 miles.

RUTLAND, TOLUCA & NORTHERN.—*To Foreclose.*—The Chicago & Alton having failed to pay the rental on the Rutland, Toluca & Northern, one of its subsidiaries which extends from Rutland, Ill., to Granville, 27 miles, the first mortgage bondholders' committee of the smaller road has instructed its counsel, Wollman & Wollman and Robert G. Starr, to institute foreclosure proceedings under the mortgage and for the termination of the lease. Because of the default of the Chicago & Alton, the Rutland, Toluca & Northern has defaulted in the payment of the interest due April 1 and October 1 of this year.

VICKSBURG, SHREVEPORT & PACIFIC.—*Authorized to Issue Bonds.*—This company has been authorized by the Interstate Commerce Commission to issue $3,545,000 of refunding and improvement mortgage 6 per cent bonds, of which all but $300,000 are to be exchanged for a like amount of bonds now outstanding and $300,000 are to be sold at not less than 93 to reimburse the treasury for expenditures.

WESTERN MARYLAND.—*Authorized to Issue Notes.*—The Interstate Commerce Commission has authorized an issue of 5-year 7 per cent secured gold notes and the pledge of $8,700,000 of first and refunding mortgage 5 per cent bonds as collateral for these notes.

Dividends Declared

Cleveland & Pittsburgh.—Seven per cent stock, 1 per cent; special guaranteed, 1 per cent; both payable December 1 to holders of record November 10.

Norfolk & Western.—Common, 1 per cent (extra), and 1¾ per cent, quarterly, both payable December 19 to holders of record November 30.

Pullman Company.—$2.00, quarterly, payable November 15 to holders of record October 31.

Trend of Railway Stock and Bond Prices

	Oct. 23	Last Week	Last Year
Average price of 20 representative railway stocks	58.86	58.65	72.40
Average price of 20 representative railway bonds	81.92	81.88	87.13

THE BROTHERHOOD of Railway and Steamship Clerks, etc., has filed a bill in equity in the United States District Court, at Philadelphia, against the Pennsylvania Railroad and certain of its officers asking an injunction to break up a "conspiracy" which is claimed to be inimical to the brotherhood. Charges are made that the association of clerks recognized by the railroad company is not representative and that the conduct of the railroad is such that that association is not independent. Complaint is made also that the railroad is furnishing the funds to maintain the association. The court has appointed a hearing for November 2. Following this announcement, representatives of the shopmen who struck last year gave out that an injunction would be asked against the Pennsylvania to force renewal of relations between that road and System Federation No. 90; and to restrain the operation of the so-called company unions; also to recover for the shopmen, members of the strikers' union, who remained at work, about $15,000,000 alleged under-payment in wages.

Railway Officers

Executive

George Durham has been elected vice-president and general manager of the Wheeling & Lake Erie with headquarters at Cleveland, Ohio.

Joseph H. Young, former receiver for the Denver & Rio Grande Western, with headquarters at Denver, Colo., has been elected president of the Rio Grande Southern, with headquarters at the same place.

Elisha Lee, vice-president of the Eastern region of the Pennsylvania, has been elected vice-president of the Central region with headquarters at Pittsburgh, Pa. **C. S. Krick,** general manager of the Eastern region with headquarters at Philadelphia, has been elected vice-president of the Eastern region with the same headquarters.

Financial, Legal and Accounting

H. J. Peterson, chief clerk of the Interline Freight Account Bureau of the Union Pacific at Omaha, Neb., has been promoted to assistant auditor of freight accounts, with the same headquarters.

Operating

D. B. McIntyre, trainmaster of the Wisconsin division of the Chicago & North Western, with headquarters at Kenosha, Wis., has been promoted to assistant superintendent of the Peninsula division, with headquarters at Escanaba, Mich., succeeding **G. M. Pike,** who has retired after 36 years of continuous service with the North Western.

R. V. Massey, assistant general manager of the Eastern region of the Pennsylvania, has been appointed general manager of the same region with headquarters at Philadelphia. **C. I. Leiper,** general superintendent of the New Jersey division with headquarters at New York, has been promoted to assistant general manager of the Eastern region with headquarters at Philadelphia. **W. B. Wood,** general superintendent of the Illinois division with headquarters at Chicago, has succeeded Mr. Leiper at New York. **H. H. Garrigues,** superintendent of the Philadelphia Terminal division, has succeeded Mr. Wood at Chicago. **J. O. Hackenburg,** superintendent of the Buffalo division, has been appointed superintendent of the Philadelphia Terminal division. **E. B. Whitman,** master mechanic at Wilmington, Del., has succeeded Mr. Hackenburg as superintendent of the Buffalo division. **A. J. Whitney,** general superintendent of the Northern division, has been appointed general agent at Buffalo, N. Y., and **W. L. Ekin,** superintendent of the Philadelphia division, has been appointed general superintendent of the Northern division. **D. Y. Geddes,** superintendent of the West Jersey & Seashore, has succeeded Mr. Ekin and **T. C. Herbert,** superintendent of the Schuylkill division, has become superintendent of the West Jersey & Seashore. **J. B. Phelan,** assistant superintendent of the Philadelphia division, has been appointed superintendent of the Schuylkill division. **J. B. Hutchinson, Jr.,** general superintendent of the Michigan division, has been appointed assistant to the general manager of the Northwest region, and has been succeeded by **P. L. Grobe,** superintendent of the New York division. **F. D. Davis,** superintendent of the Norfolk division, has been appointed to a similar position on the New York division. He has in turn been succeeded by **N. B. Pitcairn,** division engineer of the New York division. **J. C. McCollough,** general superintendent of the Eastern Ohio division, has been appointed assistant to the general manager of the Central region and has been succeeded by **J. F. Patterson,** superintendent of the Eastern division of the Central region. He in turn has been succeeded by **J. H. Redding,** superintendent of the Erie & Ashtabula division. **C. E. Whitlock,** freight trainmaster of the Middle division, has been appointed superintendent of the Erie & Ashtabula division.

Traffic

J. A. Fitzpatrick, assistant freight traffic manager of the Toledo, St. Louis & Western, with headquarters at Toledo, Ohio, has been appointed assistant to the traffic manager of the New York, Chicago & St. Louis, with headquarters at Cleveland, Ohio.

Julien L. Eysmans, traffic manager of the Eastern region of the Pennsylvania with headquarters at Philadelphia, has been appointed to a similar position on the Central region at Pittsburgh, succeeding **George O. Ogden.** Mr. Ogden has in turn succeeded Mr. Eysmans at Philadelphia.

Mechanical

H. C. Gugler, general foreman of the Chicago, Burlington & Quincy, at Wymore, Neb., has been promoted to master mechanic of the Wymore division with the same headquarters, succeeding G. O. Huckett, assigned to other duties.

Obituary

E. W. Johnson, formerly general agent for the New York Central at Chicago, died on October 17.

Colonel V. E. McBee, at one time fourth vice-president of the Seaboard Air Line, died at his home at Greenville, S. C., on October 20, at the age of 74.

Charles S. Fee, passenger traffic manager of the Southern Pacific, with headquarters at San Francisco, Cal., whose death in that city on September 25 was reported in the *Railway Age* of October 6, page 650, was born on September 24, 1853, at Laurel, Clermont county, Ohio. He entered railway service in May, 1873, as secretary to the general superintendent of the Michigan Central, which position he held until May, 1875, when he resigned to become chief clerk to the general manager of the Hannibal & St. Joseph. He held this position until 1877, when he became chief clerk to the general manager of the Northern Pacific, which position he held until September, 1883, when he was promoted to general passenger and ticket agent. On April 1, 1904, he was appointed passenger traffic manager of the Southern Pacific, which position he held until his death.

Charles S. Fee

James P. Elmer, formerly assistant general passenger agent of the Chicago Great Western with headquarters at Minneapolis, Minn., died on October 17 at St. Cloud from heart disease. He entered railway service in 1897 as a city passenger and ticket agent on the Chicago Great Western at St. Paul, Minn. In 1898 he was promoted to general agent, passenger department, with the same headquarters, which position he held until April 1, 1901, when he was promoted to general passenger agent with headquarters at Chicago and later at St. Paul. In November 1909 he resigned to become vice-president of the Moore Patent Car Door Company, St. Paul, which position he held until September 1911. On January 15, 1917, he re-entered railway service as assistant general freight agent of the Chicago Great Western with headquarters at Minneapolis, Minn., which position he held until May, 1920, when he was appointed assistant general passenger agent with the same headquarters. On March 31, 1922, he resigned to become associated with the Ordway-Cutler Company, dealers in oil burning equipment.